King County

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

September 28, 2010

Motion 13354

Proposed No. 2010-0471.2 **Sponsors** Hague

A MOTION approving the Final Annual King County Health Reform Initiative Measurement & Evaluation Report.

WHEREAS, the goals of the King County Health Reform Initiative are to improve the long-term health of King County's employees, reduce the rate of growth in King County's health care costs over the period of 2007-2009, and determine whether employee productivity increases as a result of improvement in health, and

WHEREAS, the council through Motion 12131 adopted in May 2005 approved the business case and requested the executive to provide by September 1, 2005, an evaluation program design prepared by a consultant to assess the effectiveness of each of the internal Health Reform Initiative programs and strategies, and

WHEREAS, Motion 12353 adopted in September 2006 established the production of and transmittal to council by motion of an annual measurement and evaluation report on August 15 of each of the five years of the program starting with August 2006 for 2005 data, and

WHEREAS, the Final Annual King County Health Reform Initiative Measurement & Evaluation Report for the 2009 reporting period has been transmitted to the council in conformance with all applicable motions and direction;

NOW, THEREFORE, BE IT MOVED by the Council of King County:

A. The Final Annual King County Health Reform Initiative Measurement & Evaluation Report, Attachment A to this motion, is hereby approved.

B. The Health Reform Initiative is transitioned to an ongoing employee health and well-being program responsible for continuing the comprehensive, integrated effort to make a healthier King County workforce and more efficient, effective health care delivery system.

Motion 13354 was introduced on 8/23/2010 and passed by the Metropolitan King County Council on 9/27/2010, by the following vote:

Yes: 9 - Ms. Drago, Mr. Phillips, Mr. von Reichbauer, Mr. Gossett, Ms. Hague, Ms. Patterson, Ms. Lambert, Mr. Ferguson and Mr. Dunn
No: 0
Excused: 0

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Robert W. Ferguson, Chair

ATTEST:

Anne Noris, Clerk of the Council

Attachments: A. King County--Final Health Reform Initiative Measurement & Evaluation Report, dated 09-16-10

2010-0471
ATTACHMENT A
September 16, 2010

King County

Final Health Reform Initiative Measurement & Evaluation Report

Department of Executive Services

August 2010

Final Health Reform Initiative Measurement & Evaluation Report

Key Findings and Policy Recommendations

Goals

- Improve the health of employees and their families.
- Reduce the rate of cost increase for health care.
- Increase the average number of "healthy hours worked" per employee.

Results/Program Effects

- The Health Reform Initiative has:
  - Improved 12 out of 14 health risk factors in employees.
  - Reduced use of health care for 3 out of 5 key health conditions directly affected by changes in those risk factors.
  - Reduced growth in health care costs. King County and employees spent an estimated $26 million less than expected based on cost trends in place before the Health Reform Initiative was implemented.
  - Maintained the average number of healthy hours worked per employee.
- The Puget Sound Health Alliance is starting to influence quality in the local health care delivery system.

Lessons Learned

1. The county's supply and demand side approaches to containing health care costs was farsighted and still reflects the nation's best thinking on the most effective strategy for moderating cost growth.
2. Moderating health care costs requires both short- and long-term strategies.
   a. Plan design changes that impact health care utilization patterns cut costs in the short term.
   b. Long term, sustained cost savings are achieved through reduction of risk factors and improvement in health.
3. Changing the way medical services are reimbursed is critical to aligning market forces behind the delivery of quality healthcare rather than the amount of services provided.
4. Annual measurement and evaluation reports produce data useful beyond King County, but require program consistency that limits flexibility to respond to changing conditions.
5. Motivating employees to make healthy lifestyle changes and building a culture of wellness requires sustained support, energy and innovation. Employees respond to well-calibrated incentives, removal of barriers and strong communication and education campaigns.

Key Findings and Policy Recommendations continued

Policy Recommendations

1. Transition the HRI to an on-going Employee Health and Well-Being Program responsible for continuing the comprehensive, integrated effort to make a healthier King County workforce comprised of more knowledgeable and conscientious health care consumers, along with a health care system that is more efficient and effective in its delivery of health care.
2. Establish health policy for labor negotiations focused on changing incentives and plan design in ways that reinforce and support employees taking an active role in their health care, and reinforcing improvements in the health care delivery system.
3. Continue active support for and leadership in the Puget Sound Health Alliance whose mission is to create a more efficient, high quality health care delivery system.
4. Integrate the ongoing measurement and evaluation of the Employee Health and Well-Being Program into the Executive's overall performance management process, and shift the Program to become more of a laboratory that uses near-time data to identify emerging opportunities to improve health and manage costs, and quickly design, implement and measure the effect of more situation-specific interventions.
5. Reinvigorate leadership investment in creating a healthy workplace culture. Individual healthy behaviors thrive when change is supported and rewarded.

I. Introduction

When King County prepared to negotiate a three-year health benefits package with its 92 union bargaining units in 2004, the picture was dismal. Health care costs were rising at rates three times the Consumer Price Index (CPI), threatening to double the cost of the benefits plan in less than seven years. The county recognized that efforts to control sharply increasing costs by limiting access to providers and health services through "gate-keeper" managed care plans, contracting with providers for reduced fees, and after-the-fact claims review would not be enough. A more comprehensive approach was needed.

An analysis of our employee health care expenditures showed that five percent of all people covered on the county's health plans accounted for over 58 percent of our total costs. Low back pain, cancer, depression, diabetes, coronary artery disease and asthma were the most costly conditions in the county's population. High cholesterol and high blood pressure were the most common risks. For each chronic condition a person had, the cost of claims approximately doubled. Fourteen percent of the people covered on the plan had five or more chronic conditions.

A survey and focus groups of our employees showed that they were: 1) aware of the cost issues in the national health care crisis but unaware of the findings of the Institute of Medicine report on the high rate of patients receiving inappropriate, poor quality or unsafe care; 2) interested in having and using tools that would help them be more informed users of health care; 3) interested in preventive care and open to using disease management resources if they had a chronic health condition; and, 4) motivated to maintain their health so that they could "be there" for their families and enjoy their retirement years.

Working closely with our unions, in 2005 King County launched the Health Reform Initiative (HRI), a comprehensive, integrated effort to create a healthier King County workforce of employees who are more knowledgeable health care consumers, and develop through a regional effort a health care system that is more efficient and effective in its delivery of care. At its inception in 2004, the HRI had two key goals: improve the health of employees and their families, and reduce the rate of cost increase for health care. The HRI added a third goal in 2007—determine whether employee productivity increased as a result of improvement in health.

To achieve these goals, the HRI has implemented a coordinated set of demand-side and supply-side programs.

Programs to Reduce the Demand for (or Use of) Health Care:

- The Healthy Incentives^{SM} benefit plan design helps employees and their families build good health behaviors and manage chronic conditions more effectively.
- "Health Matters" programs in the workplace include efforts to educate employees about health and the wise use of health care resources, as well as workplace

activities to support physical wellness, healthy eating and preventive care (such as annual flu shots).

Programs to Moderate Costs Charged by the Health Care System (the Supplier):

- The Puget Sound Health Alliance brings about changes in the health care delivery system to improve the quality and reduce the cost of health care. The Alliance promotes coordination of care across providers, encourages the use of evidence-based treatment guidelines, and has created a system of quality measurement available to all providers, health plans and health plan sponsors in the region.

A detailed Health Reform Initiative Program Overview is provided in Appendix A.

II. Results/Programs Effects

1. Positive Impact on Employee Health

One of the key goals of the HRI has been to help employees and their families make and maintain fundamental changes in health behavior. According to D.W. Edington, Ph.D., Director of the Health Management Research Center at the University of Michigan, one of the most important factors in controlling growth of health care costs over time is to "keep people from getting worse." Dr. Edington has conducted longitudinal studies of 20 corporate health promotion and wellness programs covering over two million persons for more than 30 years. He recommends that programs should aim to keep 75 percent or more of the population at low risk, and keep moderate and high-risk members from getting worse.

The wellness assessment and individual action plan components of the Healthy Incentives[SM] program were responsible for making significant progress in this area, as evidenced by the first three findings below. More than 90 percent of eligible employees and their spouses/domestic partners participated each year. This very high level of participation was the result of a concerted education program, a workplace that removes barriers and reinforces participation, and well-calibrated incentives. Descriptions of the Healthy Incentives[SM] program and the supportive environment tools and resources are provided in Appendices B and C respectively.

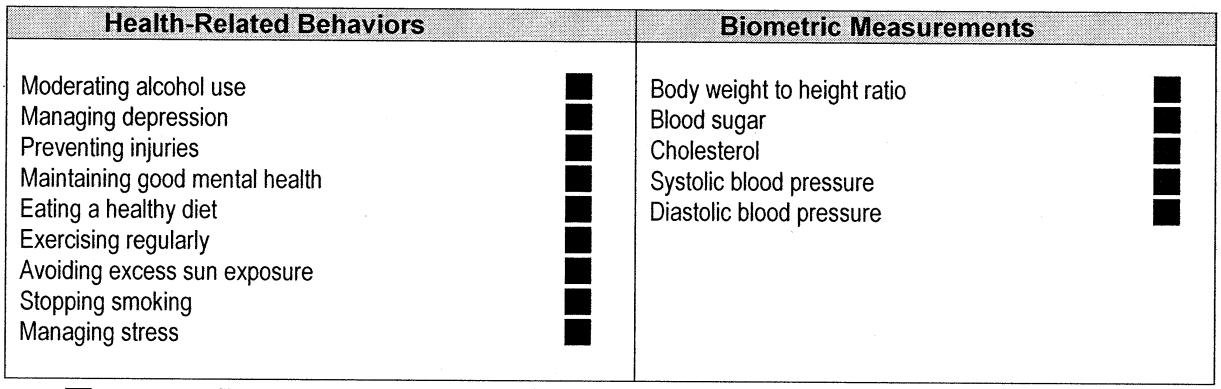
- ***Employees improved many behaviors that put them at risk.***

Comparing 2009 to 2006, employees and their spouses/domestic partners reported improvements in 12 out of 14 health-related behaviors and risk factors as measured in the annual wellness assessment questionnaire. For two measures—physical activity and blood glucose—the changes are inconclusive and not statistically significant.

Participation in the wellness assessment has reached 90 percent of all eligible employees and their spouses/domestic partners in all four years. Figure1 below summarizes participant responses regarding their health risks.

Figure 1

Changes in the Percent of Members Practicing Healthy Behaviors and Testing in the "Healthy Range" on Biometric Measurements 2009 Compared to 2006



Key: **Improved** **Stayed the same** **Worsened**

Data are for 10, 234 employees and spouses/domestic partners who completed the wellness assessment in both 2006 and 2009

- ***Employees improved many behaviors that lead to expensive conditions.***

The HRI consulted with external experts to determine a list of diseases and health conditions that would show improvements within a period of a few months following changes in the health behavior measured by the wellness assessment. For example, if the rate of smoking in a population declines, the rates of bronchitis, asthma, respiratory infection, pneumonia, and the flu are also likely to decline within a few months. Comparing the cost per member per month for these types of conditions in 2006 to 2009, the HRI saw moderation of per member per month costs for health problems related to smoking, obesity, and alcohol abuse, no statistically significant change for the uncontrolled high blood sugar and cholesterol grouping, and an increase in cost for the stress/anxiety, depression and insomnia grouping.

Figure 2 below demonstrates the changes in health care utilization for conditions linked to smoking, as well as utilization claims related to high blood sugar and cholesterol, obesity, alcohol abuse, and common mental health conditions.

Figure 2

Change in Percent of Participants Reporting Healthy Behavior/Biometric Measurement (2006-2009) and Change in Utilization of Health Care For Associated Conditions (2006 – 2008)[1]

	Change in % of Members Reporting Healthy Behavior and Biometric Measurements 2006 vs. 2009 *	Changes in Per Member, Per Monty Cost for Health Conditions That Show Improvement Within a Few Months of Improvements in Health-Related Behaviors 2006 vs. 2008 **
Smoking	■	■ Decrease in claims for bronchitis, asthma, respiratory infection, pneumonia and flu treatment
High Cholesterol High Blood Sugar	■	■ No significant change in claims for high blood glucose, cholesterol or blood pressure
Obesity	■	■ Decrease in claims associated with obesity as a primary diagnosis
Alcohol Abuse	■	■ Decrease in claims for gastro-intestinal hemorrhage, gastritis and other conditions linked to alcohol abuse
Poor Mental Health Stress Depression	■ ■	■ Increase in claims associated with stress, insomnia, and depression *(likely due to 2006 Washington State Mental Health Parity Act)*

Key: ■ Improved ■ Stayed the same ■ Worsened

* Data from the wellness assessments for 2006 and 2009 are the source for the percentages of participants reporting these behaviors or conditions. The changes from 2006 to 2009 were statistically significant for all categories.

** Changes in actual health care utilization are based on actual claims data from 2006 through 2008. Data are for employees and spouse/domestic partners who were in the KingCare℠ plan 2002 though 2008. Ns range from 11,120 to 12,732 year to year.

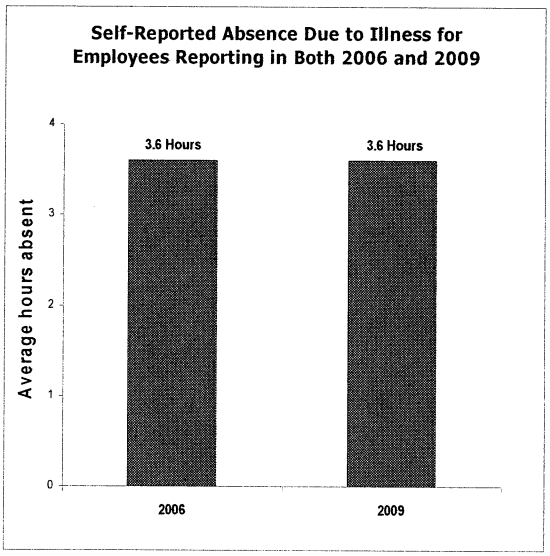
- ***Employees have maintained the annual number of healthy hours they worked.***

Since 2006, employees have reported on how many hours of work they have missed due to health conditions (absenteeism). In 2008, employees also began reporting on how many hours they have worked at less than full capacity due to a health condition (presenteeism).

Absenteeism: There was no change in the self-reported hours of absence for employees due to illness in the four weeks prior to taking the wellness assessment for employees who took the assessment in both 2006 and 2009. Figure 4 below shows this comparison.

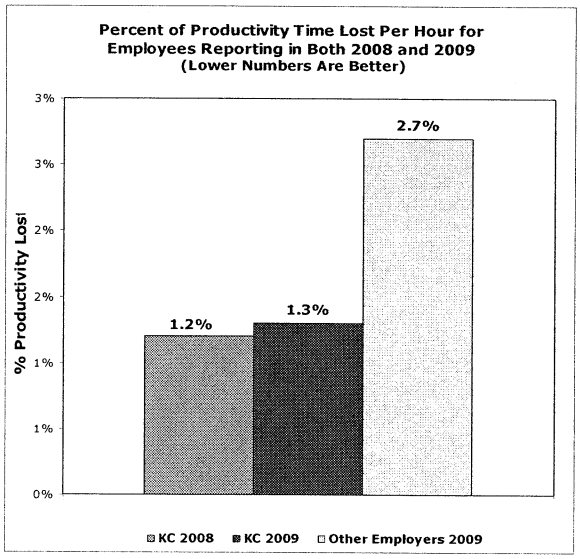
[1] Thanks to Wendy Soo Hoo, Senior Legislative Analyst on the King County Council's Budget staff for this simplified chart showing both changes and behavior and changes in utilization.

Figure 3



Data are for employees who answered absenteeism questions in both 2006 and 2009; N=4,642

Figure 4



Data are for employees who answered presenteeism questions in both 2008 and 2009; N=4,642

Presenteeism: The HRI added the eight-question version of the Work Limitations Questionnaire (WLQ), a measure of "presenteeism", to the wellness assessment in 2008. Ideally this measure would have been included in 2006. However the original focus of the HRI was on measuring changes in direct health care spending. Measurement of costs associated with absenteeism and presenteeism were added at the suggestion of the peer review panel[2].

The pattern of changes for other data from the wellness assessment shows a pattern where the greatest changes occurred between 2006 and 2007, with much smaller, or no changes, in 2008 and 2009. It is possible that the late introduction of this measure means there may have been one-time gains that occurred in 2007 that were not recorded. As Figure 4 shows, there was no significant change in the employees' self-reported presenteeism from 2008 to 2009.

[2] This panel was convened by the county executive in the fall of 2006 following the publishing of the first HRI Measurement and Evaluation report. The purpose of this panel of five health care experts was to review the strategies, policies and programs of the HRI and make recommendations on program design, implementation and adjustments needed to maximize results and sustainability. The Panel noted that a number of studies have found that costs for sick leave and replacement wages may be as much as three to four times the direct cost of health care. *See King County Health Reform Initiative Check-Up: Report of the Peer Review Panel, October 2006.*

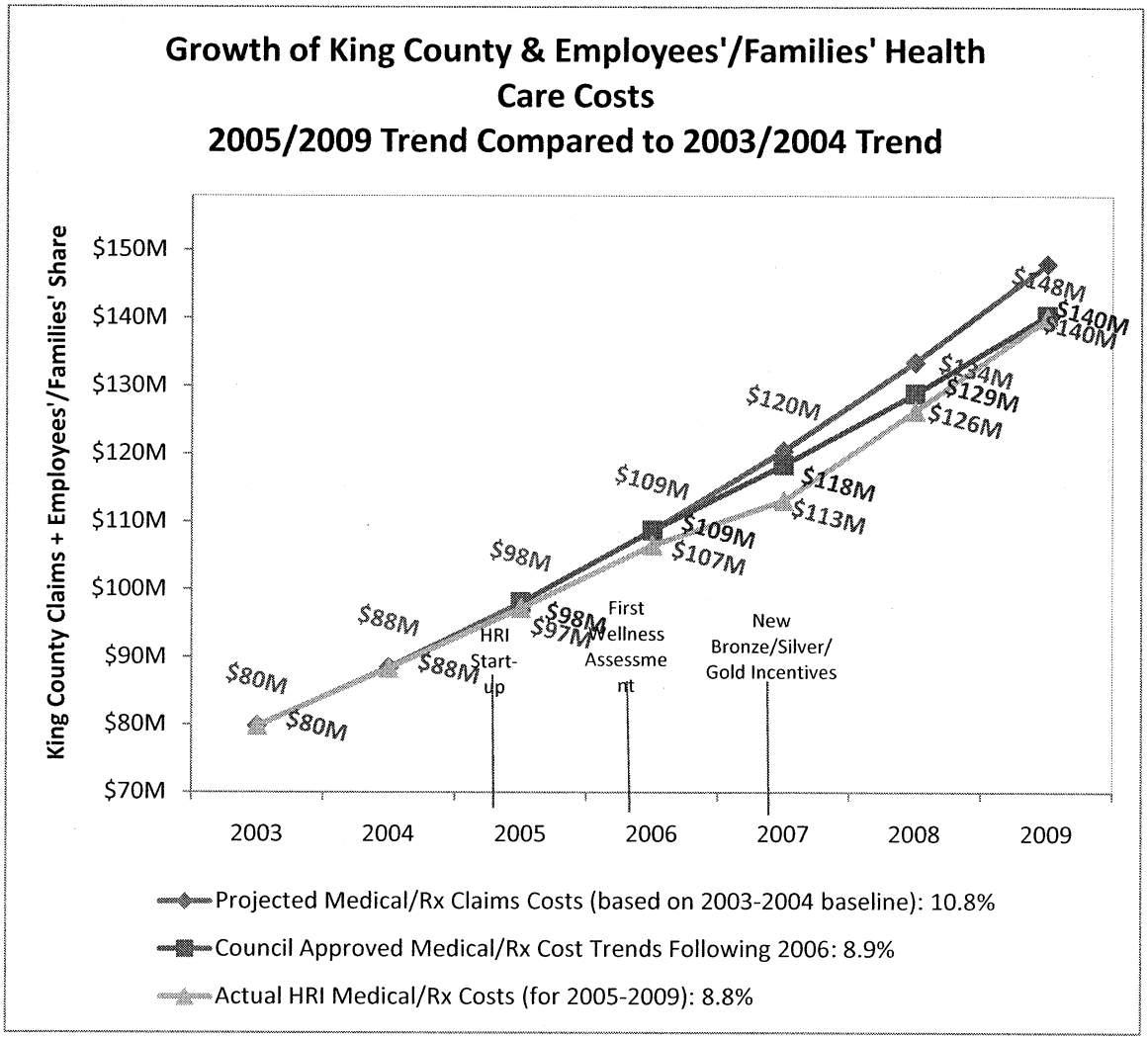
2. Modest Impact on Projected Costs

The county's health care cost increases have slowed and the county's health care costs in 2005-2009 were lower than projected increases if the HRI had not been in place. However, per member per month costs remain high. The expectation was that the HRI's comprehensive approach would reduce the unadjusted claims trend growth from 10.8 percent to below the 8.9 percent target established in 2004 for the 2005 to 2009 period. As Figure 5 shows, the total gross actual medical and prescription drug claims dropped slightly more than the council-approved target in 2005 – 2008 and, based on preliminary estimates[3] of claims for 2009, met the target in 2009. This lower increase in year-over-year costs has resulted in the county and its employees spending an estimated $26[4] million less for employee and family health care costs for 2005 through 2008 than was projected from the 2003-2004 cost experience.

[3] Actual incurred costs for 2009 could not be calculated at the time of the publication of this report. The published actual incurred cost figure was estimated using paid claims data from January 2009 through June 2010 and adjusted using the annual cost estimates from previous reports. This estimation method was deemed the most comparable to the cost figures published in previous reports.

[4] Year by year reductions: 2005--$1M; 2006--$2M; 2007--$7M; 2008--$8M and 2009--$8M

Figure 5



Data are for costs incurred in KingCare[SM] medical and prescription drug claims for active employees and their families with full benefits; excluded are costs for COBRA, early retirees, LEOFF1 retirees, and Local 587 part-time. Costs have not been adjusted for inflation. Population ranged from 17,241 to 24,235 KingCare[SM] members over that time.

One import factor in driving cost growth is population age. During the HRI the average age of the King County population has increased nearly half a year (0.44 years) every calendar year of the program. Edington[5] and others have shown correlation between age and development of chronic health conditions in the absence of wellness programs. It is significant that the HRI saw a reduction in the growth of cost increases despite this rather large increase in population age.

The higher claims growth in 2009 is likely the result of a larger than usual number of very high cost claims at the end of the year, a rush by employees and family members to see providers before the 2010 benefits plans (with their higher out of pocket

[5] Edington DW. 2001. Emerging research: A view from one research center. *American Journal of Health Promotion* 15(5):341-349.

expenses for members) went into effect, higher than usual utilization by employees anticipating layoff in 2010.

A detailed discussion of the results 2005 - 2009 is provided in Appendix D.

3. Additional Observations

Even though the HRI was not successful in finding a comparison group, the HRI has been monitoring its results and costs against health care costs seen in the market place at large. Below are several significant observations.

- ***Long Standing Utilization Patterns Remain High.***

Over the years employer-sponsored health plans have focused on making access to health care easier for employees, creating broader provider networks, eliminating preauthorization of services and making direct payments to providers rather than making employees pay up front and apply for reimbursement. The unintended consequence of these accommodations is that employees are now, in essence, using the employer's "credit card" to buy health care services. Employees choose whatever care they need or want, providers deliver whatever care they deem most appropriate, and the bill gets paid by the employer. In this model the normal market checks and balances of purchasing a product do not exist—the employee is not well informed of costs, quality or options; the provider is rewarded for providing more treatment and is not rewarded for disease prevention or disease management; and the employer has limited control over the quality, appropriateness or efficiency of the services for which it pays. This system fosters high utilization of health care by both employees and providers.

Although the HRI has moderated projected costs, as discussed below there are indications that the county's per member per month (PEPM) cost has been and continues to be higher than for other large employer plans both locally and nationally—county employees buy, and providers supply more health services than occurs in other employer populations. For example, the county's cost per employee for health care per year has increased a little over 58 percent (an average of 9.6 percent per year) since 2004. The average cost for other employer health plans in the Seattle area grew by 41 percent during that same period (an average of 7.1 percent per year.[6])

[6] These numbers are from Mercer's National Survey of Employer-Sponsored health plans. The percent increase is based on the per employee per year increase in medical plan costs including medical, pharmacy and vision plan claims and administrative expenses. Please note that the survey information represents survey participants in each year; not necessarily how much costs increased for a select group of participants (i.e., this is not for a cohort group).

- ***Cost sharing can affect utilization.***

The county is aware that the cost sharing at the point of service in the 2007-2009 KingCare℠ plan was low compared to other employer plans, and that low cost sharing contributes to high utilization. For example, the county routinely surveys nine local public section jurisdictions for information about the health plan that covers the greatest number of their employees. As Figure 7 shows, the expected out-of-pocket costs for employees as a percentage of total medical, pharmacy and dental expenses in 2009 is lowest for the county's KingCare℠ Gold at 11.7 percent and highest for the State of Washington at 18.3 percent.

Figure 6

Employee Cost Share as a Percentage of Total Medical, Pharmacy and Dental Expenses in 2009[7]

	KingCare℠ Gold	Seattle	Snohomish	Tacoma	Bellevue	State of WA	Pierce County	Everett	Port of Seattle
Expected Employee Out-of-Pocket as % of Total Claims	11.7%	17.6%	16.8%	13.2%	17.5%	18.3%	16.3%	16.3%	14.6%

The HRI, however, also recognized that in 2004 information on cost and quality of providers was virtually non-existent. One of the main driving forces for the creation of the Puget Sound Health Alliance was to create a single set of provider quality and efficiency measures that would be used by all providers and plans and made available to the public. Thus the county and unions started the HRI with an emphasis on improving health behaviors with the intention to change plan design to encourage the use of higher value care and discourage the use of lower value care as shared decision tools[8] and information on cost and quality became more available.

The county has started to address the cost sharing at point of service in the 2010 KingCare℠ plan. Starting January 1, 2010 deductibles, out of pocket maximums, coinsurance for medical services and copays for prescription drugs have all been substantially increased. For example:

[7] Prepared by Mercer Health & Benefits LLC, March 23, 2009

[8] Tools used jointly by patients and providers to select the course of treatment the best fits that patient's condition, preferences and needs.

Figure 7

Specific Changes to the Gold-level KingCare℠ plan 2010-2012[9]

KingCare℠ Gold	2007 - 2009	2010-2012
Deductible (medical)	$100 per individual $300 per family	$300 per individual $900 per family
Coinsurance (medical)	90% In network 70% Out-of-network	85% In network 65% Out-of-network
Annual out-of-pocket maximum for member coinsurance (medical)	*In network services* $800 per individual $1,600 per family *Out-of-network services* $1,600 per individual $3,200 per family	***No change from current*** *In network services* $800 per individual $1,600 per family *Out-of-network services* $1,600 per individual $3,200 per family
Prescription drug copays (at pharmacy—1 month supply)	$10 generic drugs $15 preferred brand $25 non-preferred brand	$7 generic drugs $30 preferred brand $60 non-preferred brand
Prescription drug copays (mail order—3 month supply)	$20 generic drugs $30 preferred brand $50 non-preferred brand	$14 generic drugs $60 preferred brand $120 non-preferred brand
Progressive medication for 12 drug classes	None	12 classes of drugs
Annual out-of-pocket maximum for Rx copays	Unlimited	$1,500 per individual

These changes are expected to reduce projected costs by $37 million over the 2010-2012 period. Specific areas of expected savings are listed in Figure 9.

[9] Commensurate changes were made to the Silver and Bronze levels as well. See Appendix G for details.

Figure 8

Expected Three-Year Savings from Benefits Changes for 2010-2012[10]

Change Category	Three-Year Savings
Increased deductible (first dollar charged for medical services)	$17,295,000
Increased coinsurance	$5,791,000
Prescription drug changes	$12,244,000
Increased benefit access fee	$2,242,000

The county is already seeing savings from these changes. Cost to the county for prescription drugs for the first six months of 2010 compared to the first six months of 2009 is down by 14.3 percent ($10,672,250 in 2010 compared to $12,457,554 for 2009). The change in copays paid by employees has increased use of generics (now at 72.6 percent), but does not appear to have caused more to forego filling prescriptions. The number of prescriptions per employee per month is unchanged (14.37 in 2010 vs. 14.35 in 2009), and the average days supply per prescription is up about one percentage point (31.3 in 2009 vs. 32.3 in 2010.)

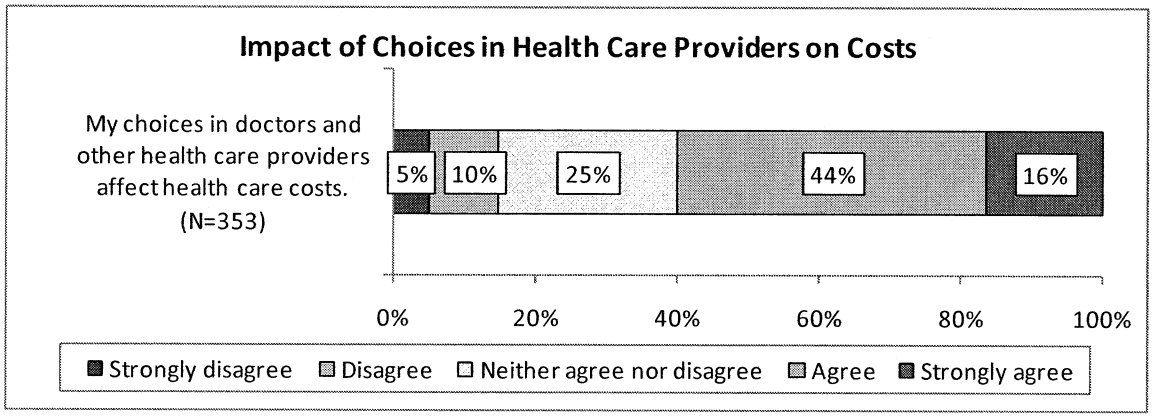
- ***Employees do not consistently see the connection between their health care choices and overall benefits costs.***

In 2009 approximately 60 percent of employees participating in the annual employee survey conducted by the HRI[11] said they "agree" or "strongly agree" that their choices in doctors and other health care providers affect health care costs (Figure 10):

[10] Prepared by Mercer Health & Benefits LLC February, 2009

[11] As part of the evaluation of its on-going program evaluation, the HRI conducts an annual employee survey. The fourth annual survey of King County employees was conducted beginning in December 2009. A stratified random sample of King County employees was solicited on-line or through inter-office mail. At least one randomly selected employee from each bargaining unit and a random sample of non-represented employees were invited to participate in the survey. By February 4, 2010, a total of 355 employees had completed and returned KCHRI employee survey questionnaires. More information about the survey is provided in Appendix E.

Figure 9



However, agreement with the statement, "My choices in doctors and other health care providers affect health care costs," declined significantly in 2007 and has remained stable since then, as shown in Figure 11:

Figure 10

Choice in Health Care Providers and Health Care Costs: 2006 to 2009

Average ratings on five-point scale where 1 is low ("strongly disagree") and 5 is high ("strongly agree")

Responses changed significantly	**2006**	**2007**	**2008**	**2009**
My choices in doctors and other health care providers affect health care costs.	3.81	3.56	3.54	3.56

In response to these findings, the HRI continues to educate employees about provider quality, offer cost comparison information, and provide access to health care decision support tools.

A description of the HRI's Choose Well program is provided in Appendix F.

- ***Consumer beliefs, values and knowledge are often at odds with messages about evidence-based medicine and health care quality.***

Convincing employees to take more responsibility for their health care by looking for quality providers, comparing costs, and participating in treatment decisions is perhaps the most difficult challenge for the HRI (or any employer's health care program.) Most employees equate more care with better care, and most believe their provider has special insight into their care. A recent study published in *Health Affairs*[12] found that:

[12] Carman KL, Maurer M, Yegian JM, Dardess P, McGee J, Evers M, Marlo KO. Evidence that consumers are skeptical about evidence-based health care. doi: 0.1377/hlthaff.2009.0296 HEALTH AFFAIRS 29, NO. 7 (2010). Accessed at http://content.healthaffairs.org/cgi/content/abstract/hlthaff.2009.0296

- Consumers think that medical guidelines are inflexible.

- Consumers believe that more care and newer care is better.

- Consumers believe that more costly care is better.

- Many consumers do not engage in behaviors that could help them become better medical decision makers.

The data from this study highlight the importance of having reliable, impartial and consistent information on provider cost and quality that is easily accessible (such as in the health plan's provider list) coupled with intensive member education and incentives for choosing high value providers and care.

- ***Engaging patients in managing their conditions requires significant effort to provide knowledge, develop skills, inspire motivation and build confidence.***

Two recent studies regarding prescription drug use illustrate the significant hurdles involved in motivating patients to actively participate in their health and health care.

In a study reported online in the February 4, 2010 Journal of Internal Medicine, researchers at Brigham and Women's Hospital found that **28 percent of all newly prescribed medications are not even filled.** This study tracked 75,000 patients for over a year, all of whom had health insurance that paid for prescription drugs.

In a second study funded by CVS Caremark, Minds at Work conducted extensive, hour-long interviews with people who either never started or stopped taking prescribed medication. The authors summarized their key findings as follows:

- 24 percent came to see that taking prescribed medications interfered with personal priorities such as taking care of family members, compromising social aspects of their lives or finding it to be just another in a long line of chores.

- 21 percent felt that taking their medicine made them feel like they were losing control of their lives and sometimes by stopping their medicine they felt they were resisting authority.

- 17 percent felt that taking medicine gave them an unfavorable identity or made them feel old, or they wanted others to view them in a more favorable light.

- 16 percent believed they knew better than their doctors what was good for them, and some thought they should take care of their health through diet and exercise.

- 16 percent were wary of the health care and pharmaceutical industries and didn't want to become dependent on medications or suffer unknown side effects.

- 6 percent did not want to change their personal routines and simply put off taking their medications.

Other studies report similar high ratings of non-compliance regarding patient follow-through on self-care for chronic conditions such as regular monitoring of blood pressure, blood sugar, weight or other biometric measures, or adherence to recommendations regarding nutrition, general exercise or specific therapeutic exercises.

Commenting on the psychology of patients managing chronic health conditions, Dan Ariely, professor of psychology and behavioral economics at Duke University and the author of *Predictably Irrational* noted, "The problem is that it's all about trading off the long-term future with the short-term consequences. It turns out that when we are faced with this tradeoff, we often make the wrong choice."

4. Workplace Culture That Supports Employee Health

Both the level of participation and employee feedback indicate that the county has made significant inroads into creating a workplace that supports health.

- ***Participation remains very high.***

No program can be successful if participation does not reach a critical mass. The HRI has achieved participation rates that approach "best in class" as defined by Edington. In best in class programs 95 percent of all eligible people participate in at least one program activity[13]. As noted below, the HRI is seeing participation rates of 90 percent in the Healthy Incentives[SM] program alone. This does not include people who may participate only in worksite health promotion activities outside of the Healthy Incentives[SM] program.

Year by year participation in the Healthy Incentives[SM] program is summarized in Figure 12 below.

[13] Edington, DW. 2006. *Towards Champion Worksites* checklist sent to the County by the author in May 2007. Dr. Edington also covered these points in two presentations at the county—the Health Leadership Forum, May 17, 2007, and the Labor Summit, June 11, 2007.

Figure 11

Percent of Eligible Employees and Spouses/Domestic Partners Who Have Completed the Wellness Assessment and Individual Action Plan 2006 Through 2009

Year	Number Eligible	Number Completing Wellness Assessment (WA)	Percent of Eligible Completing WA	Number Completing Individual Action Plan	Percent of WA Takers Completing Action Plans
2006	19,702	17,844	90.6%	15,703	88.0%
2007	19,377	17,772	91.7%	15,913	89.5%
2008	19,495	17,410	89.3%	16,074	92.4%
2009	21,085*	18,788	89.1%	15,187	80.8%

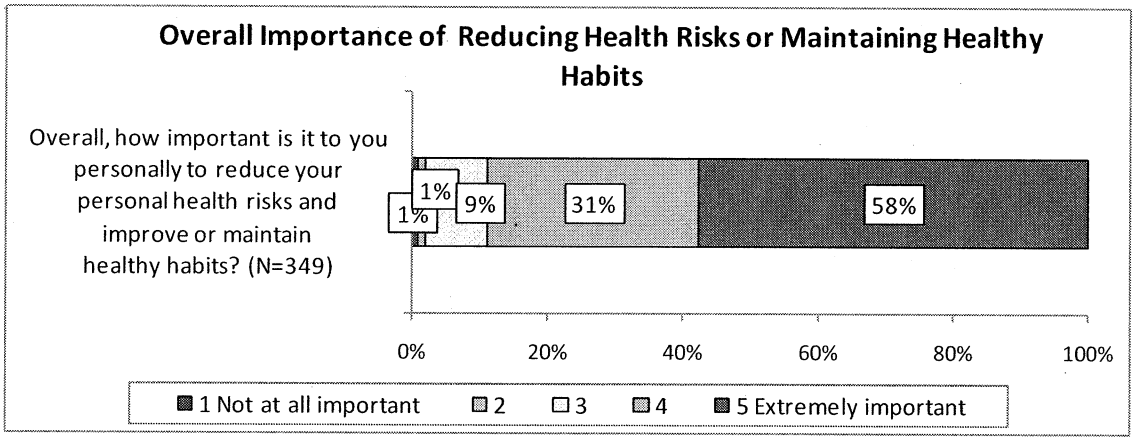
Data are for all active employees and their spouses/partners in the KingCare℠ and Group Health plans.
* The Deputy Sheriffs participated in the Wellness Assessment and Individual Action Plan programs for the first time in 2009.

- ***Employees still support the program.***

Results from the fourth annual employee survey also indicate that employees are still very engaged in the HRI. For example:

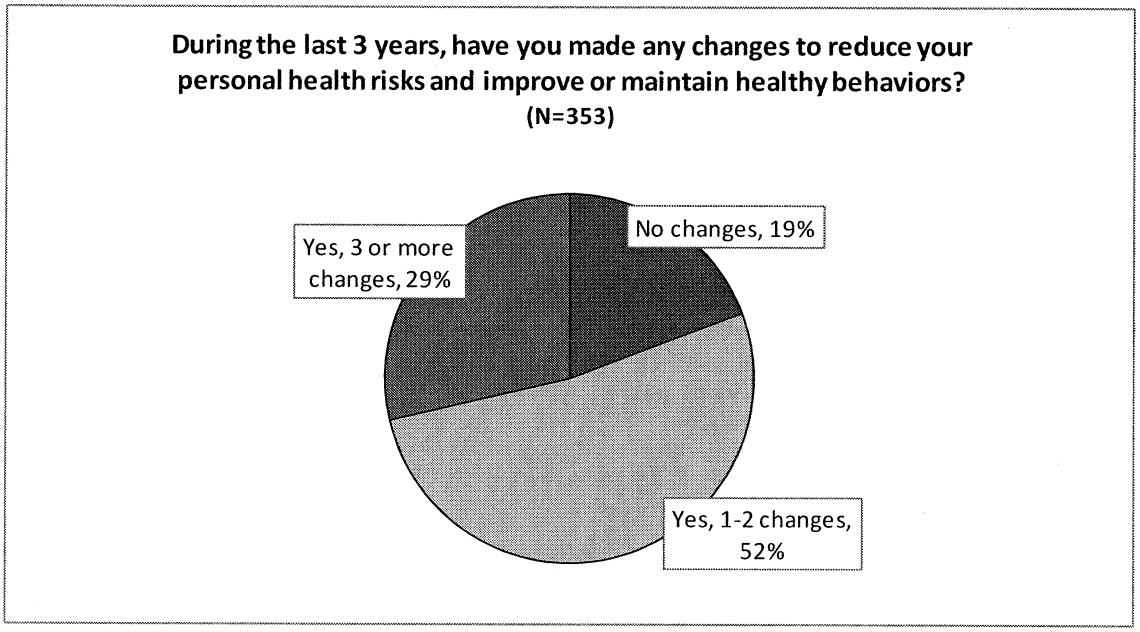
- Employees still believe it is important to reduce health risks and maintain a healthy lifestyle. As Figure 13 shows, 89 percent rated the importance of reducing personal health risks and improving or maintaining healthy habits a 4 or a 5 on the five-point scale where five means "extremely important."

Figure 12



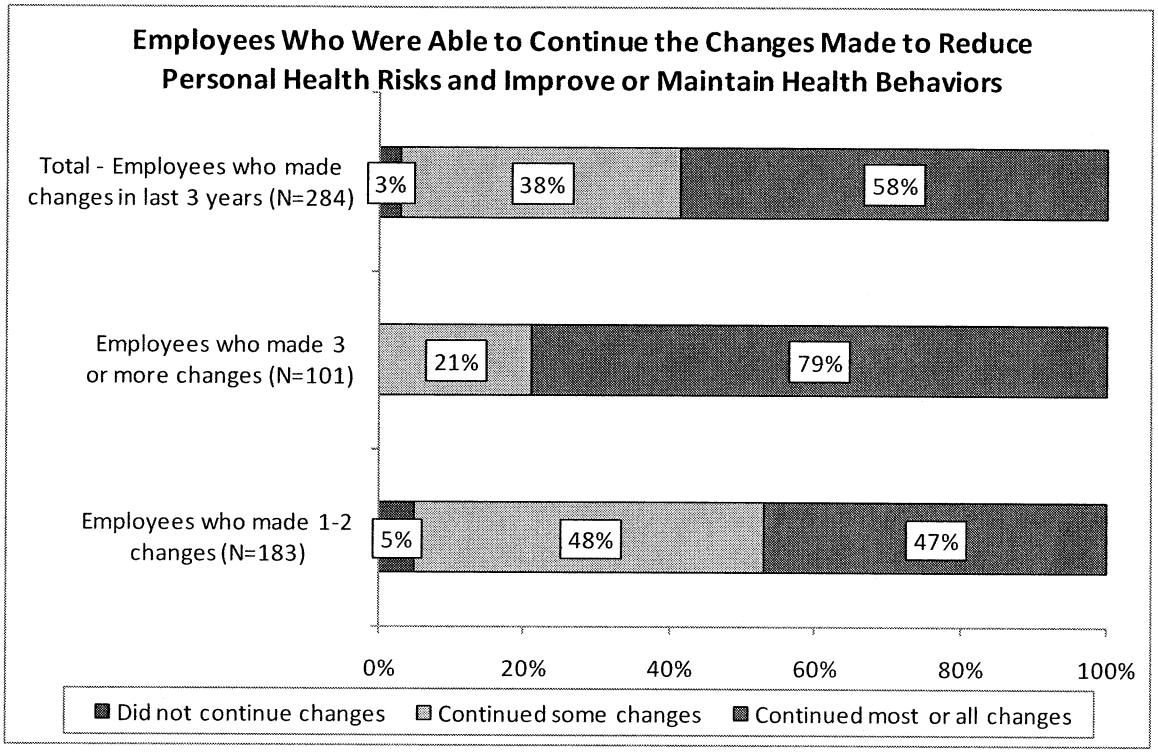
- Most employees (81 percent) report they have made at least one change to reduce personal health risks and improve or maintain healthy behaviors during the last three years (Figure 14).

Figure 13



- When asked if they have been able to continue the changes made to reduce personal health risks and improve or maintain healthy behaviors, the vast majority (97 percent) of employees said that they had continued most or all of the changes (58 percent) or some of the changes (38 percent). As the Figure 15 shows, all of the employees who made three or more changes said that they have continued at least some of their changes. Most of the employees (95 percent) who made one or two changes said that they continued at least some of the changes.

Figure 14



- The overall results of the four annual employee surveys show that over time, satisfaction with, and opinions of, the HRI have remained at least as favorable as they were when the program was new and employees may have been most motivated to participate in the program. However, it is important to note that there is also a pattern of early gains, then decline, in several key areas that may reflect program fatigue and a need to revitalize aspects of the program. Three specific areas showing this pattern are:
    - Ease of reducing personal health risks.
    - Benefits of participating in an individual action plan
    - Employees' perceptions of their supervisors' support for improving health and maintaining healthy behaviors.

Even before the third employee survey was conducted HRI staff anticipated there would be waning of member enthusiasm, hence made the decision to look for a new wellness assessment and individual action plans for 2010-2012. The Request for Proposals for new programs was initiated in 2008.

Appendix E is the Executive Summary of the 2009 Employee Survey.

5. Puget Sound Health Alliance Influence on the Local Health Care Delivery System—Comparisons of Health Care Quality Over Time

This year for the first time the Puget Sound Health Alliance (Alliance) is able to look at data over time for the Community Checkup. Transparency is important if the health care system is going to change for the better. Comparing data over time creates a picture of how quality of care is changing, and provides an important step toward changing it for the better.

The analysis below was prepared by the Alliance to compare data from two Community Checkup reports: the second report (covering October 1, 2006 to September 30, 2007) and the current report (covering July 1, 2008 to June 30, 2009). The data are for the commercially insured population only, because the Alliance did not collect Medicaid data for the earlier report. Eighteen measures are included in the comparison, reflecting those measures that are directly comparable between both reports. While it awaits future reports to confirm whether the comparison between the two reports here constitutes a trend, these data do suggest the direction that care in our region is taking.

- *Use of Generics:* The data for use of generic medications shows the greatest improvement compared to the regional average. This is due, in part, to the improved ability to capture and report on medication prescriptions by the health care provider who ordered the prescription. The regional average for the use of generic statins jumped more than 30 percentage points, an increase probably attributable in part by the expanded list of drugs captured in the current report. The use of generic antacid medications jumped more than 25 percentage points. Generic use of antidepressants and pain relief medications also showed substantial improvement. In part, the change seems likely to be due to an increase in the number of generic medications in the market in some of the categories. But heightened awareness of the value of generics also likely played a significant role in the change. The advances in these measures are a heartening indication of the strides that our community is able to make in improving the value and quality of care in our region.

- *Diabetes Care:* Another area in which the region has performed consistently well, on average, and saw improvement between the two reports is diabetes care. For each of the four measures, our region has performed on average above the top 10 percent national benchmark. Results for the cholesterol test, blood sugar test and eye exam measures are higher for the fourth report. But, results for the kidney disease screening are slightly lower. While results for most of the measures are tightly clustered, there remains significant variation in the region for the eye exam measure.

- *Appropriate Use of* Care: For the two appropriate use of care measures that appear in both Community Checkup reports — avoidance of imaging for low back

pain and avoidance of antibiotics for the common cold—the region outperformed the top 10 percent national benchmark in both reports. In particular, there was an increase in the regional average for the low back pain measure, and the number of groups performing above the national median grew. This Community Checkup report is the first time that the Alliance has reported medical group results for avoidance of antibiotic treatment in adults with acute bronchitis. The region falls between the national median and the national top 10 percent national benchmark for this measure.

- *Heart Care:* The regional average for the cholesterol measure has improved from the second report to the current one, with the regional average now in the top 10 percent of performers nationally. There has also been an increase in the regional average for cholesterol-lowering medication, likely caused in part by a revision in the drugs the Alliance includes in the measure. There is somewhat more variation in the current measure for those medical groups performing above the regional average.

- *Preventive Care:* One category in which there remains opportunity for improvement as a region is preventive care. While there has been some improvement in each of the three measures—screening for cervical cancer, screening for Chlamydia and screening for colon cancer—there remains wide variation in performance. For none of the measures in the current report does the regional average exceed the national top 10 percent of performers. Indeed, for the Chlamydia screening measure, the national median has increased so that the regional average for the fourth report, while still above the median, is not nearly as far above it as it was in the second report.

- *Appropriate Medications for Chronic Conditions:* In the current report, the region is near or above the top 10 percent of national performers for two measures pertaining to antidepressant medications. However, the medical groups now performing least well on these two measures are at a substantially lower performance rate than in the second report and fall below the national median, indicating an opportunity to share information as a community. The current regional average for the appropriate use of medication for asthma has improved from the second report and now approaches the national median.

Graphic representation of these results is available at
http://kingcounty.gov/employees/HealthMatters/Visitors/HRIToolkit.aspx

Going forward, employers, plans and providers need to use the information from these reports to measure progress in increasing value through a balance of improved health outcomes and more efficient use of resources.

The work the Alliance is doing to promote transparency of quality of services by providers, hospitals and health plans:

- Creates public accountability, including for health disparities,
- Sets targets for improvement,
- Stimulates dialogue among providers to compete, and
- Gives consumers more information about the care they need and how providers vary.

More important, the results may be tied to provider pay incentives and or network design. Improving results will reduce the personal and financial cost of chronic disease and preventable conditions. Lower cost for health care is in the long-term interest of the county and every other employer in the region.

The Alliance work plan over the next couple of years will include:

- Fall, 2010: Create a Performance Improvement Learning Network with the Washington State Medical Association and the Washington Academy of Family Physicians.

- 2011: Provide Medicaid results stratified by race and language.

- Fall 2010: Report on resource use.

- Early 2011: Launch multi-payer medical home pilot with common payment incentives to reduce avoidable emergency room and hospital visits.

- 2011: Add new measures to the Community Checkup Report.

- 2012: Create a report on patient experience.

- 2012: Plan to incorporate electronic health record data.

III. Lessons Learned

In 2004 when the HRI was designed and developed, there were very few examples of integrated employee health and productivity models in employer settings, and even fewer formal, published studies documenting best practices. The county developed the HRI based on case studies of individual program elements (*e.g.* disease management programs for specific conditions, worksite health promotion programs) and white papers on healthy workplace strategies found in the literature. The concept of addressing both employee demand for health care and the cost and quality of the health care delivery system on the supply side was ambitious. The Healthy Incentives[SM] plan design, although simple in concept, presents extreme challenges for outside vendors whose wellness assessments and action plan programs set the bar for earning rewards fairly low. Vendors routinely underestimate the rigorous tracking and reporting capabilities required to handle formal appeals by members and have great difficulty delivering systems that meet our needs. The art and science of measuring return on investment (ROI) for disease management programs is plagued by imprecise definitions of program cost and results, and the fact that any given employer's population may not have enough members with a particular condition to obtain valid results.

Finally, the decision early on to measure the HRI's success in terms of immediate dollar savings and ROI for every program component proved to be problematic and one-dimensional. The Council's approval in 2007 to add measures to track participation, changes in health risks and changes in productivity added valuable insight into the process of change.

Key learnings from the HRI include:

1. **The county's supply and demand side approaches to containing health care costs was farsighted and still reflects the nation's best thinking on the most effective strategy for moderating cost growth.**

Employers have some tools available to reduce demand for health care. For example, employer-sponsored health promotion programs can help members gain knowledge, skills and confidence to manage their health and make health care choices. Incentives for participation can help create the short-term reward many members need to get started. Health plan design (specifically through strategic use of cost sharing) can encourage members to shop for more cost effective providers in much the same way they look for value in purchasing wide screen televisions or cell phone service plans.

There are, however, limits on the amount of overall cost saving these kinds of programs can achieve. To begin with, these approaches run squarely into the reality that most patients still equate more care with better care, and most believe their providers have special insight into their care. Many patients expect, and often demand, the newest and most costly care.

A much larger cost driver is the waste in the supply side of American health care system stemming from huge variations in quality and large variations in utilization and costs by community. "Quality defects" in health care include under-use of evidence-based care, overuse of tests and treatments that are redundant or have little or no value, and treatment at the wrong time or in the wrong setting (*e.g.* treating non-emergencies in the Emergency Room). The Dartmouth Center for Evaluative Clinical Science states that 20 to 30 percent of health care spending in the United States goes for procedures, visits, drugs, hospitalizations and treatments that do not improve quality or extend life[14]. The Institute of Medicine in Washington, D.C. estimates that health care costs could be reduced by 25 percent if inappropriate care was eliminated[15].

2. Moderating health care costs requires both short- and long-term strategies.

Reduction of risk factors and improvement in health will make permanent changes in costs in the long term. Studies by Goetzel[16], Edington[17] and others have shown that even small decreases in the risk profile of employees translate into significant on-going cost reductions over time.

Lower risk and improved health will not, however, deliver immediate reductions in utilization. The county has started with its 2010 benefits plans to make significant changes in its fundamental health plan design that support more conscientious use of health care resources by employees and family members in order to dramatically "bend the trend" in the short term. These changes need to include increased member cost sharing at the point of buying health care services (higher deductibles and copayments) as well as incentives to encourage and support member engagement in choosing and adhering to treatment programs.

3. Changing the way medical services are reimbursed is critical to aligning market forces behind the delivery of quality healthcare rather than the amount of services provided.

Nearly all health care in the United States is currently provided on a fee for service model. This model reinforces all of the things that contribute to waste in the system and financially penalizes providers who focus on outcomes and efficient use of resources. Going forward the focus needs to change to paying providers for value, not volume.

Harold Miller[18] , President and CEO, Network for Regional Healthcare Improvement and Executive Director, Center for Healthcare Quality and Payment Reform, and others

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[14] http://tdi.dartmouth.edu/

[15] http://tdi.dartmouth.edu/

[16] Goetzel RZ, Ozminkowski, R.J., Baase, C.M., Billotti, G.M. Estimating the return-on-investment from changes in employee health risks on the Dow Chemical Company's health care costs. J Occup Environ Med. 2005;47(8):759-768.

[17] Edington DW. 2001. Emerging research: A view from one research center. *American Journal of Health Promotion* 15(5):341-349.

[18] http://www.chqpr.org/downloads/HowtoCreateAccountableCareOrganizations.pdf

strongly advocate for a more efficient, coordinated, value-driven model of health care reimbursement characterized by the following:

- Paying for someone (ideally the Primary Care Physician) to coordinate all of the various providers and services and help patients avoid unnecessary/preventable services

- Paying all providers in ways that encourage them to coordinate their services and be more efficient

- Creating and paying for the information infrastructure that facilitates coordination and use of efficient services

- Providing education/incentives to *patients* to allow coordination, adhere to treatment plans, and choose high-value providers and services

- Creating organizational mechanisms to enable efficient/effective coordination and accountability without creating larger monopoly providers

4. Annual measurement and evaluation reports produce data useful beyond King County, but require program consistency that limits flexibility to respond to changing conditions.

In order to maintain program consistency for the whole 2005 – 2009 measurement period, the HRI could not make changes in several program elements even though new and improved versions of these elements came to the market in that period. For example, the HRI could not change to the updated wellness assessment Healthways developed for all of their other clients, or change the criteria for assigning participants into low, medium or high risk groups, nor could it change the individual action plan model that restricted all low risk participants to activity logging, and all moderate and high risk participants to coaching calls.

Going forward, data need to be used in new ways to identify emerging opportunities to improve health and manage costs, and to quickly design, implement and measure the effect of more situation-specific interventions. Now that the HRI has completed its initial formal study phase (2005-2009) that required it to keep certain programs in place and measure their effects on a retrospective basis, going forward it will be able to shift to a more "opportunity driven" mode. Using near-time data to identify emerging opportunities to improve health and manage costs, the HRI will be able to more quickly design, implement and measure the effect of more situation-specific interventions. Three contributing factors to this change include: a) the database the HRI has been building for the past six years; b) the several years of extensive claims data from the major plans and plan sponsors compiled by Puget Sound Health Alliance that can be used as a regional benchmarking resource; and c) a turnover in the HRI statistician position that will allow the HRI to engage a combination of resources with extensive expertise in health care data analysis.

5. **Motivating employees to make personal healthy lifestyle changes and building a culture of wellness requires sustained support, energy and innovation. Employees respond to well-calibrated incentives, removal of barriers and strong communication and education campaigns.**

An analysis in program results and employee feedback year over year shows a consistent pattern of the highest positive results (*e.g.,* reduction of risk factors or employee ratings of the program) between the first and second year, with much smaller changes (either positive or negative) in each of the subsequent years. This pattern of immediate risk reduction or strong employee enthusiasm followed by a regression to previous levels is typical for many health promotion programs whereby initial improvement is achieved in the first year and additional effort is required to attain and sustain these improvements over time.

Specifically, the HRI found that:

- ***Incentives need to be significant, meaningful and relevant:*** In comparison to other programs mentioned in the literature that used more informal "gift card-type" rewards for participation in wellness assessments and action plans, the HRI achieved nearly unmatched participation through the gold, silver and bronze out-of-pocket expense rewards.

- ***Steps to make the employee wellness program more rigorous and accountable are best made gradually.***

  Change is very difficult for people, especially change that requires a high degree of personal engagement. People who are being asked to change must have the knowledge, skills and confidence to make that change. As Chip Heath and Dan Heath say in their book *Switch—How to Create Change When Change is Hard* "small targets lead to small victories, and small victories can often trigger a positive spiral of change." They point out in example after example that big changes come from a succession of small changes, that

Employer Wellness Initiatives Grow, But Effectiveness Varies Widely

Key Takeaways

- *Programs need to be customized to suit the culture and situation of a particular employer.*
- *Clarity from senior leadership in linking wellness to the organization's business strategy is important.*
- *Effective, ongoing communication is essential at several levels.*
- *Programs that are comprehensive, integrated and diversified stand the best chance of success.*
- *Most believe financial incentives are essential, but compelling exceptions exist.*
- *Return on Investment is uncertain and measurement poses many challenges.*

Excerpts from study of employer wellness programs conducted by Center for Studying Health System Change. Research brief accessible at http://www.nihcr.org/Employer-Wellness-Initiatives.html

people need a series of small goals they believe they can achieve in order to accomplish fundamental changes in their health behavior.

The HRI has seen this effect first hand in the various program elements and activities designed to educate employees, teach them new skills for managing their health and taking more responsibility for their health care decisions.

- ***Organizational barriers to practice healthy habits at work must be removed and on-site program opportunities need to be tailored to specific worksites:*** Results from the annual employee surveys shows that employees in worksites who were actively supported by management and made the greatest use of tools like the Healthy Worksite Funding Initiative had the greatest program participation.

- ***Specific programs need to be periodically refreshed:*** The HRI receives constant formal and informal feedback from employees, much of it very positive, and some expressing dissatisfaction with doing the same individual action plans every after year. The HRI was able to address this complaint in 2010 when we came to the end of the formal study phase of the HRI and we were able to solicit new third party programs.

  In addition, results from the annual employee survey show declines in ratings of the ease of reducing personal health risks and the benefits of participating in an individual action plan. This also reflects natural program fatigue on the part of employees.

- ***Leadership support needs to be regularly revitalized:*** Comparing 2006 to 2009, there was significant decline in employees' perceptions of their supervisors' support for improving health and maintaining healthy behaviors. This suggests that the HRI should consider developing new approaches to increase supervisors' awareness of, involvement in, and commitment to the HRI in order to foster a workplace that is more supportive of employees and the initiative.

- ***Cultural change requires communication and education that very specifically addresses employee needs and concerns:*** The HRI's Health Matters team has learned that cultural change is best supported when there is

  - Clarity about what is required (*e.g.* "take the stairs" vs. "move more");

  - Situational and environmental cues to make it easier for people to behave differently (*e.g.* make sure stairs are clean, well lit and not locked. Post signs at elevators reminding people of the health advantages of taking the stairs. Maybe even make the elevators a little slower, and less convenient); and

  - People feel it is "easy" (*e.g.* messages to "sneak activity into your daily routine—look for stairs at work, shopping, school and parking lots").

IV. Recommendations

Based on the lessons learned, the HRI makes the following recommendations:

1. **Transition the HRI to an on-going Employee Health and Well-Being Program responsible for continuing the comprehensive, integrated effort to make a healthier King County workforce comprised of more knowledgeable and conscientious health care consumers, along with a health care system that is more efficient and effective in its delivery of health care.**

The HRI already has a track record of developing and empowering employees and changing King County's workplace culture as demonstrated in the more than 90 percent participation year after year in the wellness assessment and individual action plans and the reduction of 12 out of 14 population risk factors. Continued focus on employee health engagement will be needed to keep gains from the past five years from slipping away. In fact, both maintaining these changes and adding more changes will require more innovation and more effort

2. **Establish health policy for labor negotiations focused on changing incentives and plan design in ways that reinforce and support employees taking an active role in their health care, and reinforcing improvements in the health care delivery system.**

As noted throughout this paper it is essential to combine health promotion activities with plan design changes and consumer engagement tools to create immediate, significant impact on health care utilization and costs. The county's health policy should emphasize a commitment to providing employees with comprehensive information on provider cost and quality, and decision tools to support their active participation in their treatment. Plan design should actively steer employees to providers with the highest quality and efficiency scores, and to centers of excellence, and should ensure that all medically necessary treatment is available and accessible. Listed below are examples of strategies that could be considers, along with supporting "Choose Well" outreach and education campaigns that would reinforce the strategy:

- Increase member cost sharing to reinforce value for dollar.
  Education: Aetna cost of care tool, Washington Community Check-Up Report.

- Add more incentives for member engagement & adherence to care.
  Education: Evidence based care, patient shared decision making.

- Create more focused access to health care (smaller networks based on quality and efficiency).
  Education: Washington Community Checkup Report, What is quality care (Robert Wood Johnson Foundation).

- Add requirements to RFPs that improve provider pricing through high performance provider networks, centers of excellence, bundled payment systems and other means.

Any changes in the plan design will need to take into consideration new rules stemming from Patient Protection and Affordable Care Act (PPACA) and Health Care and Education Reconciliation Act (HCERA) to be sure it does not trigger the excise tax and yet provides enough benefits to cover more than 60 percent of allowable costs.

3. Continue active support for and leadership in the Puget Sound Health Alliance whose mission is to create a more efficient, high quality health care delivery system.

There are limits on the amount of overall cost savings that can be achieved through moderating demand. As noted in Lessons Learned, a much larger cost driver is the waste in the American health care system stemming from huge variations in quality and large variations in utilization and costs by community.

> "That's the one truly scary thing about health reform: far from being a government takeover, it counts on local communities and clinicians for success. We are the ones to determine whether costs are controlled and health care improves – which is to say, whether reform survives and resistance is defeated."
>
> Atul Gawande, April 5, 2010

The work the Alliance is doing to promote performance measurement (measuring variation in quality and cost of health care), public reporting (making variation across providers and plan transparent), performance improvement (using reports to change results and improve value), consumer engagement (helping consumers make informed decisions), and payment reform (paying providers for value, not volume) is perfectly aligned with process and goals of national health care reform provided for in the PPACA.

The Puget Sound region is fortunate have a head start on the hard work of changing its local health care delivery system to reduce waste, improve outcomes, and make this region a more affordable place to live and do business. Efficient, effective health care is essential to our economic health and vitality.

4. Integrate the ongoing measurement and evaluation of the Employee Health and Well-Being Program into the Executive's overall performance management process, and shift the Program to become more of a laboratory that uses near-time data to identify emerging opportunities to improve health and manage costs, and quickly design, implement and measure the effect of more situation-specific interventions.

An example of a "laboratory" approach is "value-based insurance design," so called because its purpose is to create better value by encouraging employees and providers to reduce waste through the right care at the right time in the right setting.

Identifying opportunities for value-based interventions requires sophisticated analysis of claims and demographic information to identify categories of care that are under-used or over-used by a large number of people and offering specific incentives to change behavior. Two possible examples of how this approach might work are listed below.

- *Example 1:* Getting an annual flu shot is a good example of a health intervention that is widely under-used (for example, only 35 percent of King County employees get a flu shot even though it is offered at King County worksites at no cost to employees.) To encourage more people to get a flu shot, the health plan might send global reminders to get flu shots in September/October each year that includes information about flu shot clinics at stores where they may regularly shop, and send a personal follow up reminder to people who did not get a flu shot by December 15.

- *Example 2:* Evidence-based research shows that too many cases of back pain are treated with surgery with no better results than several weeks of doing physical therapy (or even doing nothing at all). To reduce the number of unnecessary surgeries for back pain, the health plan might offer an incentive to people who have low back pain to use a decision-making tool that explains all of the potential risks and benefits of various treatments before they decide on surgery or other invasive treatment. Research[19, 20] shows that when patients have more complete information on all treatment options they often choose more conservative, lower cost treatments and are happier with the results.

Using internal King County and external Alliance data will enable the HRI to find more population-level patterns of health care behavior that are both prevalent and modifiable that will allow us to implement interventions that result in improvements in health and overall health care value.

5. Reinvigorate leadership investment in creating a healthy workplace culture. Individual healthy behaviors thrive when change is supported and rewarded.

Both Goetzel[21] and Edington[22] stress the critical role of senior leadership in establishing and maintaining a culture of wellness and productivity. The HRI annually surveys

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[19] "Preference-Sensitive Care", Dartmouth Atlas Project Topic Brief, Dartmouth Medical School, January 15, 2007.

[20] Couper M., et. al. National Survey of Medical Decisions, Survey Research Center (SRC), University of Michigan, 2006-2007.

[21] Goetzel RZ, Guindon AM, Turshen IJ, Ozminkowski RJ. 2001. Health and productivity management: Establishing key performance measures, benchmarks and best practices. *Journal of Occupational and Environmental Medicine* 43(1):10-1

[22] Edington, DW. 2006. *Towards Champion Worksites* checklist sent to the County by the author in May, 2007. Dr. Edington also covered these points in two presentations at the county—the Health Leadership Forum, May 17, 2007, and the Labor Summit, June 11, 2007.

employees about their perceptions of "supportive environment," especially the support from their direct managers and supervisors. Although the feedback on this question is still positive, it is slipping. In order to revitalize top managers who participate on the Health Promotion Leadership Committee, the county should consider specifically identifying support of workplace wellness as a point of management accountability.

Appendix A

Health Reform Initiative Program Overview

Background

The King County Council formally approved a set specific set of programs for the HRI by adopting Motion 12131 in May, 2005, and requested the HRI to produce an annual measurement and evaluation report 2005 through 2009 by adopting Motion 12353 in September, 2006. This is the fifth and final measurement and evaluation report to the Council under Motion 12353. This report provides a "case study" of the HRI reviewing the goals, results, lessons learned and recommendations.

HRI Framework

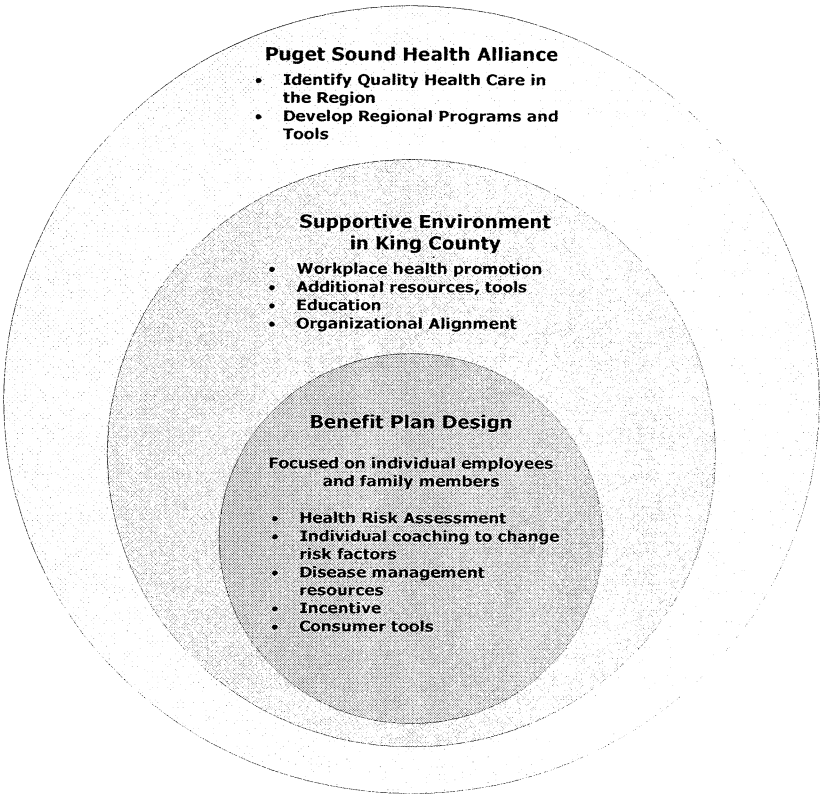
The HRI's comprehensive approach provides resources and programs at three levels. At the center is the Healthy Incentives[SM] benefits plan that focuses on helping employees and their families build good health behaviors and manage chronic conditions more effectively. Supporting the benefits plan is an organizational philosophy that creates a healthy workplace, including a set of programs to educate employees about health and the wise use of health care resources, as well as workplace activities to support physical wellness, healthy eating and preventive care (such as annual flu shots). The focus of these two levels is moderating *demand* for health care.

The third level of the HRI is the Puget Sound Health Alliance, created in collaboration with other health care purchasers, providers, and plans to address the cost and quality issues in health care across the Puget Sound region. Key programs of the Alliance focus on changes needed in the external marketplace to improve the quality of care and reduce health care costs through more efficient and effective delivery of services to individual patients. The Alliance promotes coordinating care across providers, encouraging the use of evidence-based treatment guidelines, and creating a system of quality measurement used by all providers, health plans and health plan sponsors in the region. The focus of the third level of the HRI is moderating costs on the *supply* side of health care.

The conceptual framework of the HRI is presented in Figure16 below:

Figure 15

King County Health Reform Initiative



Approach/Methodology

Evaluation Timeline

The county ramped-up its HRI intervention strategies over a period of three years. In 2005, five "care intervention" programs (nurse advice line, disease management, enhanced case management, provider best practice, and performance provider network) were implemented on a pilot basis. The HRI also started education programs showing how employees' health behavior and health care choices have a direct impact on both their own costs and the county's costs.

In 2006, employees and their spouses/domestic partners participated in the first annual wellness assessment and individual action plan cycle. A large number of healthy workplace programs were also launched or expanded, including the "Eat Smart, Move More" campaign, Live Well Challenge, Weight Watchers at Work® , Choose Generics

campaign, and Healthy Workplace Funding Initiative. In 2007, the bronze, silver and gold out-of-pocket expense levels of the health plans went into effect, and participation in the worksite health promotion programs intensified.

All programs of the HRI were in full operation 2007-2009.

The general timeline for measurement and evaluation for the HRI is described as shown in Figure 17 below.

Figure 16

Evaluation Timeline

Results	Period	Comment	Report
Baseline	2005	Establishes reference point for measuring changes	August 2006
Indicative Findings	2006	Early point estimates too preliminary to signal directional change	August 2007
Directional Guidance	2007	Initial indications of serial results that could represent emerging trends	August 2008
Early Trends	2008	Likely emerging trends	August 2009
Program Trends	**2009-2010**	**Statements of cumulative change, 2005-2009**	**August 2010**

Data Sources and Confidentiality

In order to accurately measure the results of the HRI, King County is collecting and storing insurance claims for medical and pharmacy in both the KingCare^{SM} PPO and Group Health HMO plans. From 2005 – 2009 slightly more than 80 percent of all employees (and their families) were covered by the KingCare^{SM} plan, with the remaining 20 percent covered by the Group Health plan.

The county strictly adheres to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to ensure confidentiality of individual employee and dependent information. The county uses an external data integrator service to "de-identify" individual records and assign a new, random identifier that cannot be traced back to the original employee/dependent. This process allows all of an employee's household's medical and pharmacy claims to be combined without identifying the specific employee or dependent involved.

Some analyses are not possible with HIPAA de-identified data. For this reason, some of the data used in this report were collected from online reports of aggregated data from the external third party claims administrators for the county's medical and prescription drug benefits.

Analysis of cost data presented in annual measurement and evaluation reports is based on a subset of employees and family members who were covered by King County plans both prior to the start of the HRI and by the KingCare℠ plan 2004-2009. COBRA beneficiaries, early retirees, LEOFF1 retirees, and Local 587 part-time employees and family members were excluded from this subset because they did not participate in the Healthy Incentives℠ program.

In addition to claims data, the county is collecting de-identified individual responses for each question in the wellness assessment. Participants were aware that their answers on the wellness assessment would be treated as confidential medical information so that staff at HealthMedia and Healthways (the external vendors providing the wellness assessment and individual action plan programs) would be able to see their responses; however, the staff at King County would not be able to see how any specific person answered the questions. Participants were also aware that their individual action plan and coaching would be determined by their answers on the wellness assessment.

This data collection is the foundation of the analyses reported in the annual measurement and evaluation reports, and will support future analyses to determine which current and future interventions can improve employee health, increase the quality of care in the health care market, and reduce the county's health-related costs.

Another data source for the HRI is summary information from Healthways (the vendor providing individual action plan services) about progress in reducing or eliminating risk factors reported by participants during the course of their individual action plan activities.

Finally, the HRI conducts a survey of employees annually and a survey of spouses/domestic partners every other year to gather direct feedback about the impact of the HRI from both participants and non-participants. Results from the surveys are totally anonymous and are not combined with other data in any way.

Technical Appendix

The detailed Technical Appendix prepared by the HRI Health Care Statistician is available for review by contacting the HRI at
http://kingcounty.gov/employees/HealthMatters/Visitors/Contacts.aspx

Study Design

The original intent of the HRI study design was to find a group to use as a control against which HRI's results could be measured. Control groups that would have been a possibility in 2005 included 1) randomly assigning all employees into either the study group that got the Healthy Incentives℠ plan or the control group that stayed on the 2003-2005 benefits package; 2) finding an employer whose health plan was similar to ours and whose employee population was similar to the County's in terms of age,

gender, education and economic status but who did not implement health promotion and disease management programs; or 3) creating a surrogate population similar to the county employee group from a large, privately held data warehouse.

The county's unions were opposed to providing the Healthy Incentives[SM] plan to only a subset of all employees; no employer group was willing to serve as a "control group" or share the level of data needed; and using a population from a data warehouse was prohibitively expensive.

Also, before the development of the Puget Sound Health Alliance, there was no regional database of health care utilization that could be used as a benchmarking resource for 1) effects on interventions on changes in health status over time, and 2) actual changes in "background" health care costs.

Therefore, the results of the HRI are reported against a projection of what we thought would have happened to our costs and health risk factors if pre-RI cost growth remained in effect and if employee population health status got worse because of aging. The average age of the King County population has increased nearly half a year (.44 years) every calendar year of the program; Edington[23] and others have shown correlation between age and development of chronic health conditions in the absence of wellness programs.

Program Elements

Getting started

King County spent more than a year defining and developing its HRI approach. As noted above, in 2004 the county analyzed the health care utilization patterns of employees and their families, and surveyed employees about their views and understanding of the role of health and health care in both their personal lives and for the county. The county's Joint Labor Management Insurance Committee[24] (JLMIC) was consulted and involved in this research and based on the results created the Healthy Incentives[SM] program and negotiated the benefits plan design for 2006 – 2009.

Preparing the workforce

In 2005, the HRI started intensive education programs that showed employees how their health behavior and health care choices have a direct impact on both their own and the county's costs, and prepared them for the start of the Healthy Incentives[SM] program. During 2005, the HRI's Health Matters education and communication

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[23] Edington DW. 2001. Emerging research: A view from one research center. *American Journal of Health Promotion* 15(5):341-349.

[24] The Joint Labor Management Insurance Committee is comprised of eight union representatives selected by the King County Labor Coalition (representing approximately 25 unions with over 92 bargaining units) who meet with management representatives to negotiate the benefits packages that are offered to employees. The King County Police Officers' Guild bargains a separate benefit package with the county through its collective bargaining agreement. Approximately 87 percent of the county's workforce is represented.

professionals made over 4,000 presentations to employees in their worksites. They also communicated with employees and their families using the Focus on Employees website and monthly mailing of the *Health Matters* newsletter to employees' homes. The newsletter evolved to an electronic format in 2008.

Creating a supportive workplace

A fundamental assumption of the HRI is that health is a shared responsibility involving employees, managers and supervisors, and the Health Promotion Leadership Committee.

The county recognized that in order for employees to make significant changes in their health and health care consumer habits, the HRI needed to create a workplace environment that removes barriers and reinforces healthy behavior. The county formed the Health Promotion Leadership Committee to provide direction on the overall execution of the HRI education and outreach strategy and assists in the conveyance of key messages concerning health and well-being to the workplace. This committee is made up of deputy directors, administrators and managers from each of the county's departments and independently elected offices.

Taking the commitment to sustaining a supportive environment one step further, one of the most important roles of the Health Promotion Leadership Committee is to plan the annual Health Leadership Forum. The Forum convenes more than 200 lead managers each spring to review the progress of the Health Reform Initiative, provide feedback to HRI staff on how programs are working and to brainstorm additions and revisions to programs for the coming year.

Complementing the leadership from the Health Promotion Leadership Team is the ongoing work of the Health Matters team. This team has implemented a wide array of tools and resources including Weight Watchers at Work, Live Well Challenge, onsite gym, healthy building committee, "take the stairs" and onsite flu shot campaigns, and special education programs on topics such as diabetes, and a monthly newsletter.

An annotated list of the supportive environment programs and resources is provided in Appendix C.

Operational Programs

In 2005, five "care intervention" programs (nurse advice line, disease management, enhanced case management, provider best practice, and performance provider network) were implemented on a pilot basis. These programs were revised in 2007.

In 2006, employees and their spouses/domestic partners participated in the first annual wellness assessment and individual action plan cycle. In 2007, the bronze, silver and gold out-of-pocket expense levels of the health plans went into effect, and more

worksite health promotion programs, including the Healthy Workplace Funding Initiative, were rolled out.

A detailed description of the Healthy Incentives[SM] Program is provided in Appendix B.

Reporting quality in the Puget Sound health care delivery system

To date, the Puget Sound Health Alliance has assembled an extensive set of data sources and infrastructure to produce reports the public can use to compare the quality and cost of local health care providers and health plans. The *Community Checkup*[25] report provides comparisons of quality and value for care provided by about 200 medical clinics in the region; care provided in about 40 hospitals in the region; and quality scores of health plans' success in improving their member's health. The Alliance also produces custom reports for data suppliers like King County.

The Alliance also sponsors a regional eValu8[26] process that allows employers to assess and manage the quality of regional health care vendors. eValu8 raises the bar for health care plan performance and moves the market to deliver greater value for the purchaser's health care dollar. eValu8 can be used to:

- Provide employers with consistent, evidence-based health plan assessment;
- Establish health plan performance goals and quality measures to drive improvement over time;
- Collaborate with other purchasers regionally to increase the "signal strength" for vendor improvement;
- Designate "best-in-class" performers; determine how health plans are leveraging their resources to improve member health status;
- Assess health plan capabilities to manage employee incentives of all types;
- Determine health promotion and education opportunities;
- Develop targeted strategies for improving the value of health care investments; and
- Collaborate with purchasers and health care providers to improve community health quality.

Continuous Review

The HRI has used the annual measurement and evaluation reports to council as an opportunity to review the performance of, and make adjustments as needed to its various components.

Peer Review Panel: For example, in the second annual report (published in August, 2007), staff noted that the HRI had received valuable feedback on its programs from an independent Peer Review panel[27] of health and productivity program experts, and had

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[25] See Puget Sound Health Alliance *Community Checkup* report at http://www.wacommunitycheckup.org/

[26] See National Business Coalition on Health eValu8 at http://www.nbch.org/evalue8

[27] See King County Health Reform Check-Up: Peer Review Panel Findings, October 2006.

located several well-designed studies of employer-based programs similar to the HRI. Lessons learned from these sources included:

- The approach and specific components of the HRI are consistent with "best practices" described in the literature.
- Longitudinal studies of best practice health and productivity programs show savings ramp up over time.
- There will be some increase in costs even with programs that successfully reduce the overall risk level of the target population because even low-risk individuals need more medical care as they age.
- Research indicates that programs that address multiple risks (*e.g.*, high blood pressure, high cholesterol, large waist measurement) may be more effective than programs directed at single risks (*e.g.* high cholesterol only.)
- Productivity is a significant part of the cost-benefits equation and should be measured in the HRI.
- Improvement in health is directly tied to increased employee productivity.

At the suggestion of the first Peer Review Panel, a third goal was added to the HRI in 2007—the measure the improvement in productivity ("healthy hours at work") resulting from the improved health of employees.

Analysis of care intervention programs: In addition to the literature research and feedback from the first Peer Review Panel, in 2007 the HRI conducted an analysis of the early results from the five pilot care intervention programs purchased from Aetna. As a result of this analysis, the county made the following changes to these programs mid-2007.

- *Aexcel® Specialist Network:* Aexcel® is a designation within Aetna's preferred provider network that includes specialists who have demonstrated effectiveness in the delivery of care based on a balance of measures of clinical performance and cost-efficiency. There are significant savings to the plan when members choose Aexcel®-designated over non-Aexcel® designated specialists. However Aexcel® was designed to be used in a three-tier network plan that has, for instance, a 30 percent member copay for using a specialist who is not in any Aetna network, a 20 percent copay for using a specialist who is in the regular Preferred Provider Network, and a 10 percent copay for using an Aexcel®-designated specialist. Because the county's plan does not have this structure, there is no motivation for members to select the Aexcel® specialist, and thus it is impossible to attribute to the Aexcel® program any positive changes in utilization. The county discontinued participation in the Aexcel® effective January 1, 2008.

- *Informed Health Line® (Nurse Line):* Although the Informed Health Line is very popular with members (and therefore deemed important to continue) it did not appear to directly contribute to overall plans savings. Thus effective September 1, 2007 the county changed its contract to pay only for the nurse line services and to discontinue purchasing the member survey and quarterly member communications from Aetna. The HRI has taken over these aspects of the program in its own in-house communications efforts and employee surveys.

- *Disease Management:* The HRI determined that the focus of the original Aetna disease management program was too narrow to produce discernable results. In 2006, Aetna acquired a more robust disease management program, the Aetna Health Connections program that appeared to better meet the county's needs. Effective September 1, 2007, the county was transitioned to this new disease management program.

- *MedQuery®:* This is a patient-safety program that uses evidence-based clinical rules to identify gaps in care and sends information to the provider. Effective September 1, 2007, Aetna added a member messaging feature to this program that sends information about care gaps first to the provider and then also sends a message to the members about the potential issue regarding their health and encourages the member to speak with their provider about the care consideration.

- *Enhanced Member Outreach℠:* This program identifies members who are at greater risk because they are scheduled for in-patient hospital care, are preparing for discharge from in-patient care, or have a claims history that indicates presence of an uncontrolled chronic condition or other risk factors. A specially trained nurse calls these members to encourage them to work closely with their health care providers and to follow up on treatment plans. Member response to this program has been very positive. Effective September 1, 2007, Aetna expanded this program to include nurse outreach calls to members who are 1) frequent users of emergency room services in order to help them find more appropriate alternatives, 2) using multiple providers (primary care and specialist physicians) to help members make sure they are coordinating information and care; or 3) not following up on prescription drug regiments for chronic conditions (e.g. maintenance prescriptions for chronic conditions that are not regularly refilled on time.)

The HRI evaluated the care interventions again in 2009. The HRI found that although the new disease management and revised MedQuery and Enhanced Member Outreach programs were more robust, they still identified relatively few members that would benefit from the active monitoring and nurse/caseworker outreach, and only a small proportion of those members chose to actively participate in disease management services. In spite of the fact that Aetna's in-house "Health Economic Model" projected significant savings for King County's population based on the value of the potential adverse events avoided by using these programs, the small numbers of participants

made it difficult for the HRI to independently confirm this impact. As a result of these findings, the HRI terminated these programs for 2010 and is now looking for other ways to provide disease management services.

A detailed description of the results from the 2009 program evaluation is provided in Appendix D.

Second Peer Review Panel: In 2009, the King County executive convened a second Peer Review Panel[28]. That panel recommended that the HRI should continue as an integral and ongoing part of county business, and suggested that moving forward the HRI should:

- Use data to identify key cost drivers and tailor incentives and interventions to address high-cost conditions and to target subgroups (such as spouses/partners).

- Integrate various data sources to allow for more sophisticated and customized analyses linking multiple employee and dependent characteristics with program participation patterns, health status, and utilization results. Data integrated by a third-party data warehouse would also allow for correlations based on multiple types of data, such as sick leave/productivity measures, health assessment results, health care utilization data from claims, and employee survey results.

- Develop a business case for an integrated approach to health care and short- and long-term disability-related programs and costs.

- Continue to fine-tune the benefit incentive structure by identifying key cost drivers and developing customized incentives.

- Customize outreach to specific groups/worksites; require collaboration among vendors to achieve collective goals for the HRI; and expand employee feedback opportunities.

More detailed information about the history, goals and objectives and previous reports on the measurement and evaluation of the Health Reform Initiative are available at http://www.kingcounty.gov/employees/HealthMatters/Visitors/HRIToolkit.aspx .

Program Costs

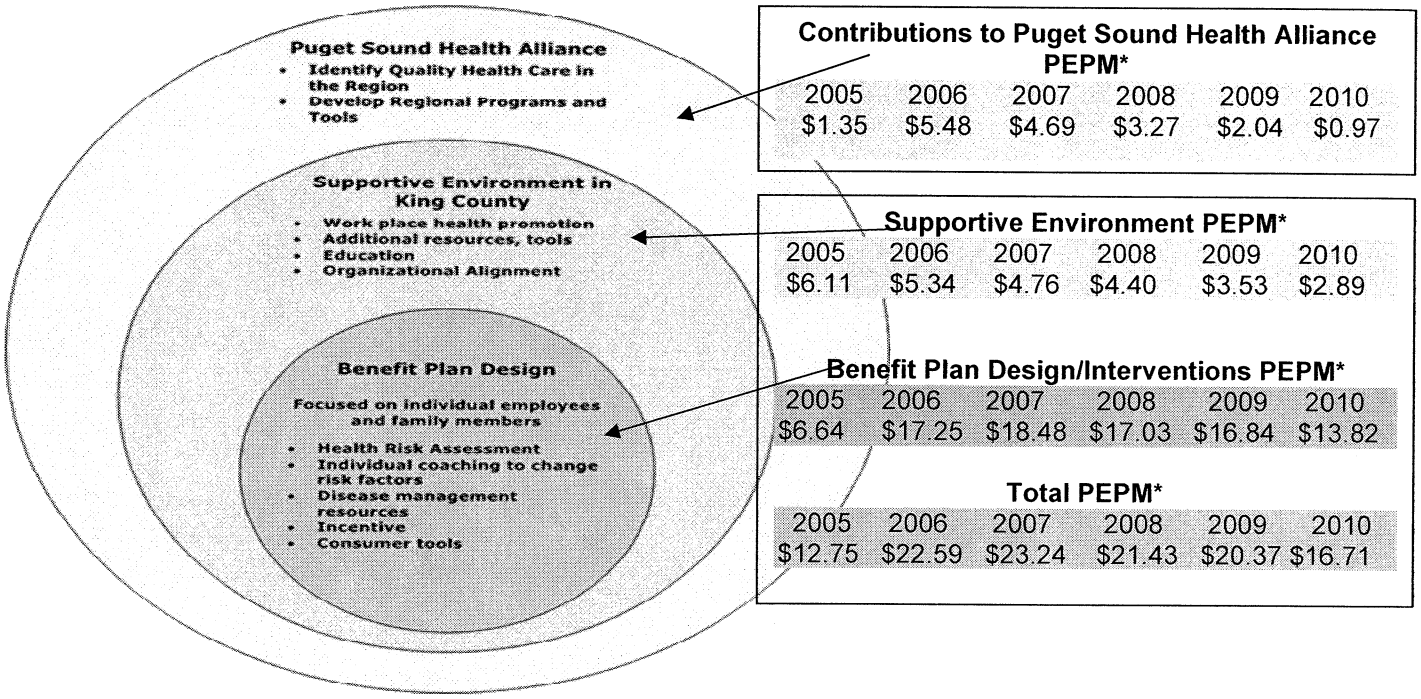
Figure 3 illustrates the three components of the Health Reform Initiative and their costs. At the center is the benefits plan design and employee health programs. The second component is the employee health education and work place wellness programs. The

[28] See King County Independent Peer Review Panel Report, August 2009

outer component is the Puget Sound Health Alliance which is an external non-profit organization charged with improving health and reducing health care costs in the region.

Figure 17

King County Health Reform Initiative



*Per employee per month

Figure 18 shows that the overall costs of the Health Reform Initiative declined from 2007 (the first year of full implementation) to 2010 by a little over 28 percent, from $23.24 per employee per month to $16.71 per employee per month. Cost reductions were seen in all three categories every year during that period.

2010 and Beyond

The HRI has already started to implement lessons learned from the first five years and suggestions from the second peer review panel. Specifically, the Joint Labor Management Insurance Committee has negotiated a benefits package that extends the Healthy Incentives[SM] program 2010 through 2012 and starts to implement a key recommendation from the HRI to increase cost sharing with employees at point of service. For example, deductibles in the KingCare[SM] plan in 2010 are 300% of the deductibles in the 2009 plan. It is expected that higher employee costs for health services (except preventive care) will remind employees to be more conscientious consumers and to make more use of provider-specific cost and quality tools when deciding when and where to seek treatments. A review of other employer plans shows

that increased cost sharing at point of service can have a dramatic impact on overall utilization without affecting overall health outcomes.

A comparison of the 2007-2009 plans to 2010-2012 can be found in Appendix G.

Appendix B

The Healthy Incentives℠ Benefit Plan Design

At the heart of the HRI is the Healthy Incentives℠ health care benefit plan. Prior to launching the Healthy Incentives℠ program the county:

- Conducted health and productivity analysis of current and predicted future health care utilization;
- Conducted a survey and focus groups of employees to determine the best way to engage King County employees and their families; and
- Developed a business case to estimate the expected cost-benefit various interventions.

The county used the business case (which was adopted by Council Motion 12131) to test options for designing the 2007 – 2009 benefits plan. Following the business case, the Health Reform Initiative Policy Committee developed a set of criteria to be used in designing and negotiating benefit plans with the Joint Labor Management Insurance Committee[29] (JLMIC). Two key directives were:

- Improve the health of county employees and their dependents.
- Reduce the rate of growth of medical plan costs by one-third (which would produce $40M in savings from what health care would have cost if there were no interventions for the 2005-09 benefit plan years).

To those ends, in 2005 the county and the Joint Labor Management Insurance Committee negotiated the Healthy Incentives℠ benefits package that includes 1) programs for disease management, expanded case management, nurse advice line, provider best practice care considerations, and high performance specialist network and 2) an expanded range of program offerings that include individual wellness assessments and targeted follow up through individual action plans to encourage changes to healthier behavior.

The official time period for the Healthy Incentives℠ plan is 2007 – 2009; however the county and the unions agreed to a phased-in approach that started two years before the "official" program. In 2005, the county added several programs to its self-insured plan including a 24/7 Nurse Advice Line, disease management programs, and an active outreach program for members who are about to undergo an inpatient hospital stay, are getting ready to come home from an inpatient stay, or have medical indications that they may experience a high risk event in the next 12 months.

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[29] The Joint Labor Management Insurance Committee is comprised of eight union representatives selected by the King County Labor Coalition (representing approximately 25 unions with over 92 bargaining units) who meet with management representatives to negotiate the benefits packages that are offered to employees. The King County Police Officers' Guild bargains a separate benefit package with the county through its collective bargaining agreement. Approximately 87 percent of the county's workforce is represented.

In 2006, the program starts to focus on both "healthy" and "at risk" employees and their spouse/domestic partners. All benefit-eligible employees and their spouses/domestic partners are eligible to take a wellness assessment that focuses on health behaviors such as nutrition, physical activity, perception of stress, use of tobacco and alcohol, safety habits (such as wearing seat belts when traveling in an automobile) and health consumer habits (such as getting age and gender-appropriate screenings.) This wellness assessment measures the member's level of risk[30], openness to making behavior change in each area, and the member's confidence in his/her ability to make a change.

Figure 18

Healthy Incentives℠ Program

	KingCare℠		Group Health	
	Annual Deductible	Co-insurance*	Office Visit Copay	Hospital Copay**
Gold	$100/ind. $300/family	10%	$20	$200
Silver	$300/ind. $900/family	20%	$35	$400
Bronze	$500/ind. $1500/family	20%	$50	$600

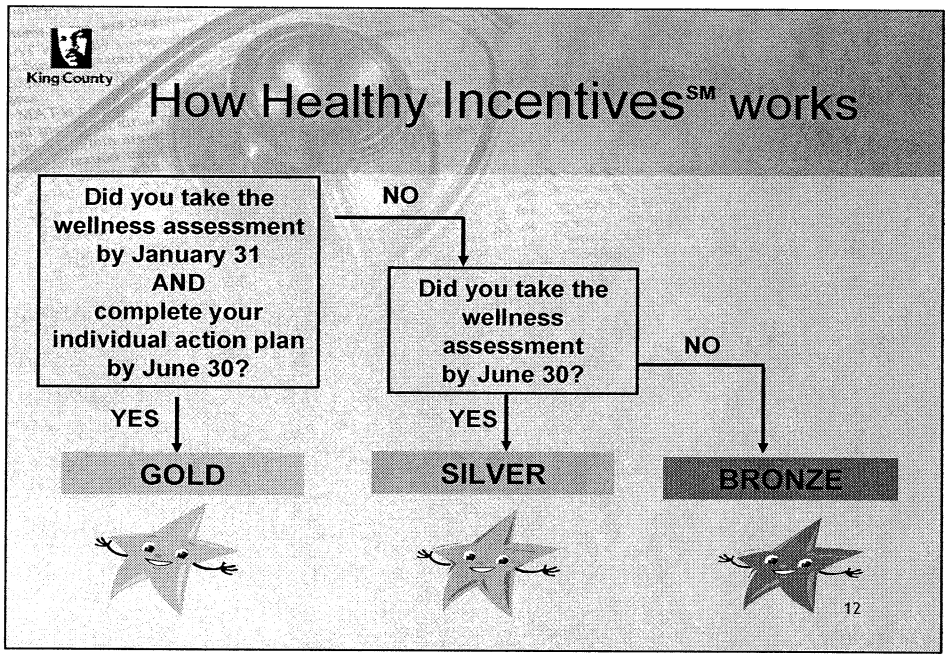
*In-network provider
** Per inpatient stay

Participation in the wellness assessment and individual action plans is voluntary, however there are financial incentives attached to participation. Members who take the assessment and participate in an individual action plan in 2006 will be eligible for the gold out-of-pocket expense level in the health plan in 2007. Members who take the wellness assessment but do not participate in an individual action plan will be eligible for the silver level, and members who do not take the wellness assessment will only be eligible for the bronze of out-of-pocket expense level. The benefits covered by each out-of-pocket expense level are the same; the only difference is amount the member pays for services. (Please note: King County pays the entire health plan premium for the employee and family.) Figure 19 illustrates *some* of the differences in out-of-pocket expenses for the county's two health plan choices:

[30] High risk is defined as self-reporting any current tobacco use **or** three or more of the following conditions: high blood pressure, high cholesterol, physical activity less than 3 times per week, poor nutrition, high stress/poor well-being, high alcohol use or a body mass index greater than 26. Moderate risk is defined as self-reporting two of these factors, and low risk is defined as reporting zero or one risk factor.

Figure 20 illustrates the process for earning eligibility for lower out-of-pocket expenses:

Figure 19



In 2007, 2008 and 2009 the program repeats itself – members who take the wellness assessment and participate in an individual action plan to improve their health habits in 2007 will earn lower out-of-pocket expenses in 2008, and so on.

Under the rules negotiated in 2005, participation in an individual action plan is defined as follows:

- Members who are identified as "low risk" are already engaging in health-related behaviors that are shown to reduce risk of chronic disease—such as eating right, exercising regularly, avoiding tobacco use and managing stress. These members complete eight weeks of logging of their activities related to nutrition or physical activity.

- Members who are identified as being at "moderate" or "high risk" enroll in a telephone-based coaching program for at least 90 days during which they participate in at least three coaching sessions (with follow-up activities between coaching sessions). Members are encouraged to continue participation for up to six months for moderate risk and 12 months for high-risk members.

It is essential to note that earning the lowest out-of-pocket expense levels is based on participation, not the achievement of a specific health status or outcome. The goal is foster success in making significant, life-long changes in health-related behavior.

Appendix C

Supportive Environment Programs and Resources

Programs

The King County Health Reform Initiative includes evidence-based programs designed to build and maintain a healthy workplace environment:

Eat Smart is designed to educate, encourage and empower employees (and their families) to make smart choices about what they eat. The program uses multiple media (print, web, email, live presentations, etc.) to provide quizzes, recipes tools and tips to decrease fat intake and incorporate more fruits, vegetables and whole grains into the diet.

Move More is designed to educate, encourage and empower employees and their families via multiple media to make physical activity a part of each day.

Stress Less is designed to increase awareness of the causes and effects of stress and encourage employees and their families to use tools and techniques to manage their stress. Special emphasis is placed on encouraging use of the county's Making Live Easier program.

Quit Tobacco program informs employees of the benefits and advantages of smoking cessation including online tools, printed materials and easy access to information about the assistance available through the KingCare℠ and Group Health medical plans.

Choose Well was launched in January of 2007 to empower employees and their families to be smarter health care consumers. The program highlights online decision support tools that help people find quality, affordable health care. A critical component of Choose Well, "Choose Generics," works in partnership with our prescription benefits manager, labor unions and the Puget Sound Health Alliance to inform both consumers and physicians about the benefits of choosing the lower cost but chemically identical drugs.

Healthy Workplace Funding Initiative provides funds at a rate of $25 per employee for workgroups to purchase health-enhancing goods and services such as yoga fitness training, exercise videos, stress reduction classes and nutrition information.

Gym Discounts from more than 30 fitness organizations that offer county employees an average 20 percent discount at 124 locations throughout the Puget Sound region.

Healthy Vending Machine pilot program works in partnership with vendors to stock machines with healthy snack options and drive consumer choice to healthier options by making the healthy snacks less expensive than chips, candy bars and cookies. Machines are in the King County Administration Building, the Exchange Building, the Regional Justice Center, the Wells Fargo Building, and a number of smaller worksites.

Weight Watchers at Work®, a proven weight-loss program, holds regular sessions at several workplaces throughout King County. To date, more than 10,000 pounds have been shed by participants who drop an average of eight pounds per 13-week session.

Take the Stairs annual winter campaign has spurred a movement of hundreds of stair-stepping groups and individuals, expanding lung capacity and sprucing up passageways around King County along the way.

King County Walks Week is an annual week-long event when employees are encouraged to sign up in teams to walk over lunch. Tools to make walking more enjoyable, like walking maps, are highlighted. Since the program began in 2007 more than 2,000 employees have signed up to walk over lunch and often continue the momentum after the week is over.

Worksite Flu Shot program is offered annually in workplace offices throughout King County. Each year more than 3,500 employees are vaccinated at work against the flu. In early 2010, a special joint effort with the county's health department brought onsite H1N1 flu vaccinations to over 1,000 employees and their family members at a time when many could not get vaccinated through their provider. .

Live Well Challenge is a friendly annual event where employees compete in teams for prizes and earn points for healthy activities. Since the program began in 2006, more than 3,000 employees have competed on hundreds of teams spanning every sector of county government. In 2010, it was made a Healthy Incentives℠ individual action plan

Health & Benefits Fair brings thousands of employees out to learn about personal health and to sample the opportunities available through the workplace and at home.

Farm to Work coordinates delivery of boxes for employees of fresh fruits and vegetables directly to worksites. The program is currently operating in the Chinook Building and King Street Center.

The Goat Hill Giving Garden is a demonstration garden in downtown Seattle where employees teach other employees how to grow and prepare health food. Employees maintain the garden on their own time and attend classes to learn how to build healthy soil, what to grow when and how to harvest and prepare the food. A website makes it possible for employees from all over the county to follow the growth in the garden and learn as the seasons progress. All produce is donated to the Pike Place Senior Center food bank.

Health Screenings are brought directly to employees at the worksite when the Health Reform Initiative has been able to secure partnership or grant funds that make them possible. More than 600 employees at six worksites have received free biometric screenings and health counseling from registered nurses.

Tools and resources for managers and supervisors

King County has many existing resources to help managers create a healthy worksite.

***Health Leadership Forum*:** This annual invitation to more than 200 lead managers convenes each spring to reinvigorate the county's leadership around creating an environment that is supportive of health. The program includes review the progress on the Health Reform Initiative, additions and revisions to programs for the coming year and information about the direct impacts of a healthy workplace on employee morale, health and productivity.

Manager's web page: Posted on the "Focus on Employees" web site, Managers and supervisor find easy access to the latest research and timely resources for enhancing workplace health http://www.metrokc.gov/employees/managers/default.aspx .

***Training*:** King County's Office of Training and Organizational Development offers advanced non-mandatory and individual trainings that help managers build critical skills to create a healthy worksite (http://hrd.metrokc.gov/training/).

Advanced (non-mandatory) training

Advanced Conflict Resolution: A Leadership Approach to Resolving Conflict

An intensive workshop that emphasizes active involvement. Managers and supervisors bring an actual leadership conflict dilemma for discussion and application. Demonstrations, practice with feedback and time set aside for self-reflection.

Building Effective Teams

A two-day workshop focusing on team development concepts and on building skills to effectively lead your team or work group. Case studies and exercises present strategies needed to succeed in a team-oriented work environment.

Individual training

Collaboration in the Workplace

This two-day workshop demonstrates the benefits of collaboration through highly interactive learning experiences. Case studies present common workplace dilemmas and offer opportunities to practice team decision-making and problem solving processes.

Responding to Change for Individuals

This one-day interactive workshop is devoted to helping improve understanding of the nature of change and its impact upon the manager/supervisor and the

organization. Participants learn strategies to minimize the dangers inherent in responses to change and maximize the opportunities.

Training Library

In addition to classroom training, CD-ROMs, video tapes, audio tapes, books and custom-designed training are available.
(http://hrd.metrokc.gov/training/level2/resources.htm)

Appendix D

Detailed Results 2005 - 2009

No program can be successful if participation does not reach a critical mass. The HRI has achieved participation rates that approach "best in class" as defined by D.W. Edington, Ph.D., Director of the Health Management Research Center at the University of Michigan. Dr. Edington has been conducting longitudinal studies of twenty corporate health promotion and wellness programs covering over two million persons for more than 30 years. "Best in class" programs achieve participation in at least one program activity by 95 percent of all eligible people[31]. As noted below, the HRI is seeing participation rates of 90 percent in the Healthy Incentives℠ program alone; this does not include people who may choose to do only the worksite health promotion activities.

Participation in the annual wellness assessment is consistently 90 percent of eligible employees and their spouses/domestic partners. The number of people who then follow up with an individual action plan that addresses their health risks has increased from 88 percent in 2006 to 92 percent in 2008. These rates are summarized in Figure 21 below.

Figure 20

Percent of Eligible Employees and Spouses/Domestic Partners Who Have Completed the Wellness Assessment and Individual Action Plan 2006 Through 2009

Year	Number Eligible	Number Completing Wellness Assessment	Percent of Eligible Completing Wellness Assessment	Number Completing Individual Action Plan	Percent of WA Takers Completing Action Plans
2006	19,702	17,844	90.6%	15,703	88.0%
2007	19,377	17,772	91.7%	15,913	89.6%
2008	19,495	17,410	89.3%	16,074	92.4%
2009	21,085*	18,788	89.1%	15,187	80.8%

* The Deputy Sheriffs participated in the Wellness Assessment and Individual Action Plan programs for the first time in 2009. Data are for all active employees and their spouses/partners in the KingCare℠ and Group Health plans.

In addition to participation in the HRI's interventions, in 2007 the program began closely monitoring four key results that indicate whether the effort is producing the intended changes. These key measures include:

1. Modifiable health risk factors for the population
2. Costs for health conditions that would likely improve within a few months of improvement in health-related behavior

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[31] Edington, DW. 2006. *Towards Champion Worksites* checklist sent to the County by the author in May, 2007. Dr. Edington also covered these points in two presentations at the county—the Health Leadership Forum, May 17, 2007, and the Labor Summit, June 11, 2007.

3. Overall health care costs
4. Healthy hours worked (reductions in illness-related absenteeism and presenteeism)

Analysis and discussion of the evaluation results for each of these measures appear in the numbered sections below.

1. Changes in modifiable risk factors 2006 -2009: *Employees improved many behaviors that put them at risk*

The risk profile for the King County population is a roll-up of the individual self-reported information from the wellness assessment about modifiable health risk factors, lifestyle behaviors, and biometric measures that potentially indicate a danger to health. These include nine behavioral measures—alcohol use, depression management, injury prevention, mental health practices, nutrition, exercise, sun exposure, tobacco use, and behavior in response to stress; and five biometric measures—body mass index (BMI—the ratio of weight to height), blood sugar, cholesterol, systolic blood pressure, and diastolic blood pressure.

The greatest reductions in health risks occurred between the first and second years of the program (2006-2007). Additional, though less dramatic improvements occurred in 2008 and 2009. This pattern of immediate risk reduction, followed by a regression to previous levels, is typical for many health promotion programs whereby initial improvements in health risks are achieved the first year and additional effort is required to sustain these improvements over time. Research conducted by Dr. Edington has shown that without intervention the risk level in populations tends to rise, leading to greatly increased health care costs. He has further shown that just keeping the risk level constant over time mitigates the growth in resultant health care costs[32].

Comparing 2009 to 2006, employees and their spouses/domestic partners reported improvements in 12 out of 14 health-related behaviors and risk factors as measured in the annual health risk assessment. For two measures—physical activity and blood glucose—the changes are inconclusive and not statistically significant. Figure 22 on shows the overall change in these results 2006 to 2009.

In addition to showing the level of risk for each individual factor, results for each person taking the wellness assessment can also be expressed as an overall risk score for that person. The number of people taking the wellness assessment, categorized as high risk, has dropped from 44 percent in 2006 to 34 percent in 2009. The number of low risk people has increased from 51 percent in 2006 to 60 percent in 2009.

These health improvements, although self-reported, are particularly notable given the county's stable employee base with an average age of 47[33]. Without effective intervention, an aging population would expect to see a worsening of health indicators

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[32] Edington, DW. 2001. Emerging research: A view from one research center. *American Journal of Health Promotion* 15(5):341-349.

[33] The average age of the King County workforce increased 0.44 years for every calendar year during the HRI

year-over-year. King County has been successful, not only in keeping the healthy people healthy, but in actually motivating positive health changes. Improvements in body mass index and smoking are particularly notable as these changes are very difficult for individuals to make, and they carry proven return on investment in medical claims. Body mass index (body weight to height ratio) risk for the King County population has gone down from 67.8 percent in 2006 to 65.4 percent in 2009. Smoking has dropped from 10.4 percent to 6.2 percent. Most corporate health studies see a rise in obesity and blood glucose levels over time as populations age.[34,35,36,37,38,39,40,41,42]

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[34] Presenteeism is defined as lost productivity that occurs when employees come to work but perform below par due to any kind of illness

[35] Breslow L, Fielding, J., Herman, A.A., et al. Worksite health promotion: its evolution and the Johnson and Johnson experience. Prev Med. 1994;9:13-21.

[36] Centers for Disease Control and Prevention's Task Force on Community Preventive Services. The Community Guide.
Centers for Disease Control and Prevention. Last updated February 28, 2007. Available at: http://thecommunityguide.org. Accessed March 15, 2007.

[37] Goetzel RZ, DeJoy DM, Wilson MG, Ozminkowski RJ, Roemer EC, White JM, Tully KJ, Billotti GM, Baase CM, Bowen H, Mitchell SG, Wang S, Tabrizi MJ, Bowen JD, Short M, Liss-Levinson RC, Christaldi J, Baker K. (2007). Environmental approaches to obesity prevention and management at The Dow Chemical Company: second year results. American Heart Association Annual Scientific Sessions, Orlando, FL, November 2007.

[38] Goetzel RZ, Ozminkowski, R.J., Baase, C.M., Billotti, G.M. Estimating the return-on-investment from changes in employee health risks on the Dow Chemical Company's health care costs. J Occup Environ Med. 2005;47(8):759-768.

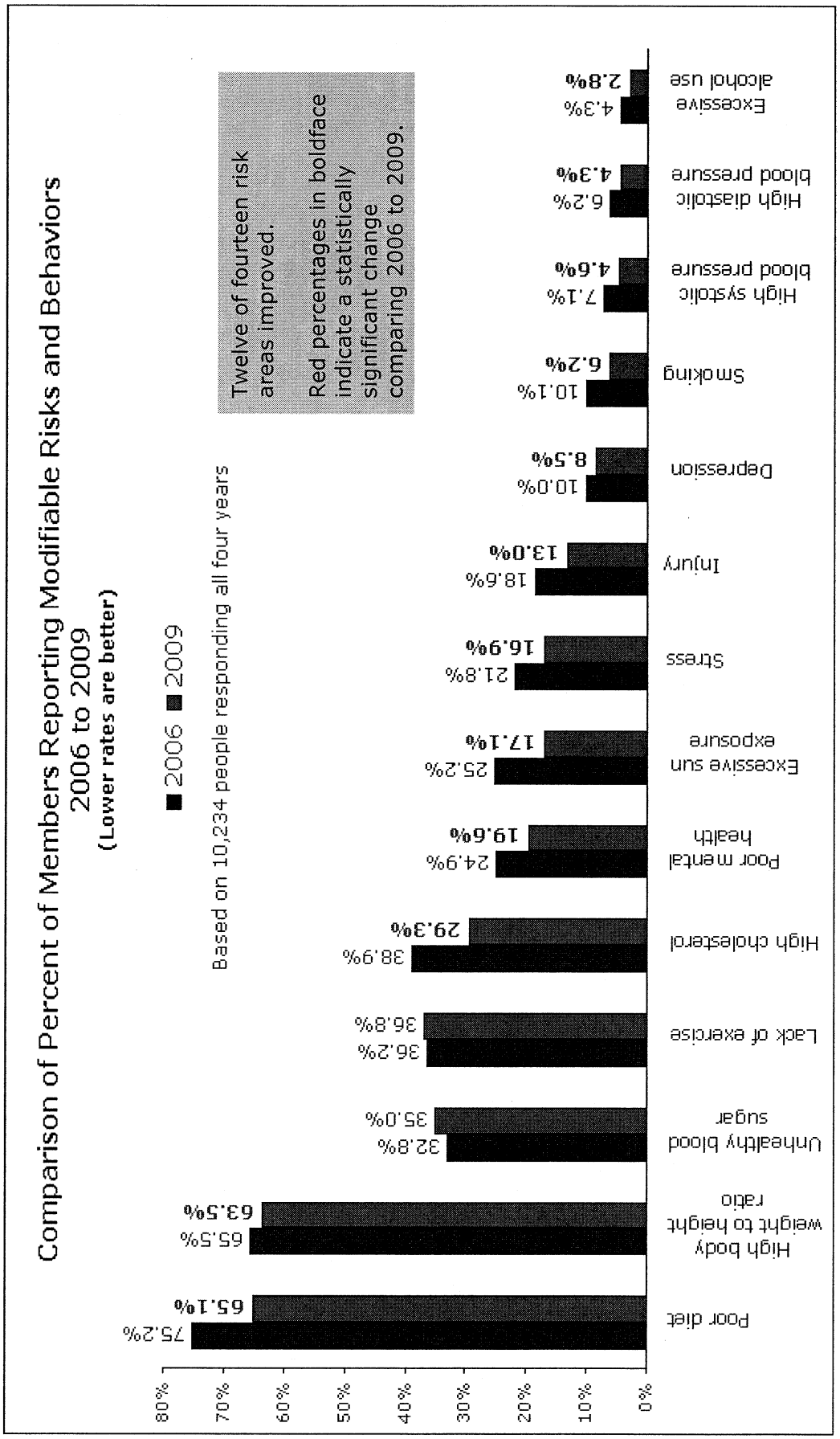
[39] Ostbye T, Dement JM, Krause KM. Obesity and workers' compensation: results from the Duke Health and Safety Surveillance System. Arch Intern Med. 2007 Apr 23;167(8):766-73.

[40] Ozminkowski, R.J., Dunn, R.L., Goetzel, R.Z., Cantor, R.I., Murnane, J., & Harrison, M. (1999). A return on investment evaluation of the Citibank, N.A., Health Management Program. Am J Pub Health, 44(1), 31-43.

[41] Ozminkowski, R.J., Goetzel, R.Z., Smith, M.W., Cantor, R.I., Shaunghnessy, A., & Harrison, M. (2000). The impact of the Citibank, N.A., Health Management Program on changes in employee health risks over time. J Occup Environ Med, 42(5), 502-511.

[42] Wang F, McDonald T, Bender J, Reffitt B, Miller A, Edington DW. Association of healthcare costs with per unit body mass index increase. J Occup Environ Med. 2006 Jul;48(7):668-74.

Figure 21



Data are for employees and spouse/domestic partners who completed the wellness assessment in both 2006 and 2009.

2. Changes in utilization of health care for conditions directly affected by changes in risk factors: *Employees improved many behaviors that lead to expensive conditions*

Risk factors such as poor nutrition, lack of exercise and smoking affect a long list of health problems, some of which respond quickly to changes and some that may take several years or more. For example, people who stop smoking will experience an immediate decrease in symptoms related to bronchitis, asthma, pneumonia and other respiratory infections. The HRI consulted with external experts[43] to determine a list of diseases and health conditions that would show improvement within a period of a few months following changes in the health behavior measured by the wellness assessment. Comparing the unadjusted costs per member, per month, for these conditions in 2006 to costs in 2009 (costs were not adjusted for inflation), the HRI saw improvements in three out of five of the condition groupings (conditions related to smoking, obesity, and alcohol abuse); no statistically significant change in one grouping (uncontrolled high blood sugar and cholesterol); and an increase in per member for common mental health conditions (stress/anxiety, depression and insomnia.)

It is important to note that the Washington State Mental Health Parity Act went into effect in 2006. This law requires plans that offer mental health benefits to provide them with the same level of coverage (*e.g.* co-pays) and restrictions (*e.g.* annual or lifetime maximum benefits) as the non-mental health benefits in the plan. As members became aware of this change in benefits the county saw a significant increase in both the number of claims and the cost per claim (unadjusted) for mental health related conditions. In many respects this increase in costs for common mental health conditions is actually a good sign that members are now seeking assistance for problems that can have a very high impact on both their ability to work productively and their overall quality of life I.

Figures 23-37 provide detail regarding the specific categories of conditions related to smoking, uncontrolled high blood sugar and cholesterol, obesity, alcohol abuse and common mental health conditions and the year-over-year changes in claims for each.

[43] Aetna Informatics Team in an email February 24, 2009.

Smoking

From 2006 to 2009 the self-reported rate of smoking decreased 3.9 percentage points from 10.1 percent to 6.2 percent (Figure 23). This change was statistically significant. Overall, costs for smoking-exacerbated conditions (unadjusted) are lower than expected, based on prior years (Figure 24.) Rates of bronchitis, asthma, respiratory infection, pneumonia, and flu are reduced in populations with lower smoking rate (Figure 25.)

Figure 22

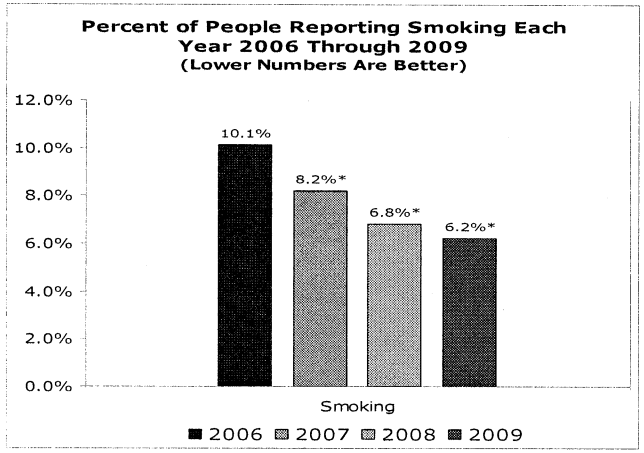


Figure 24

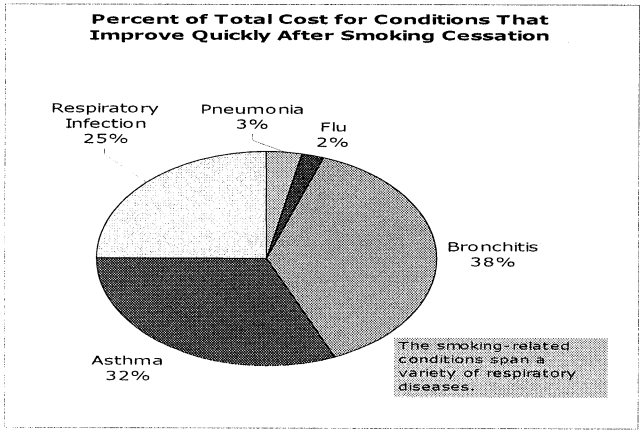
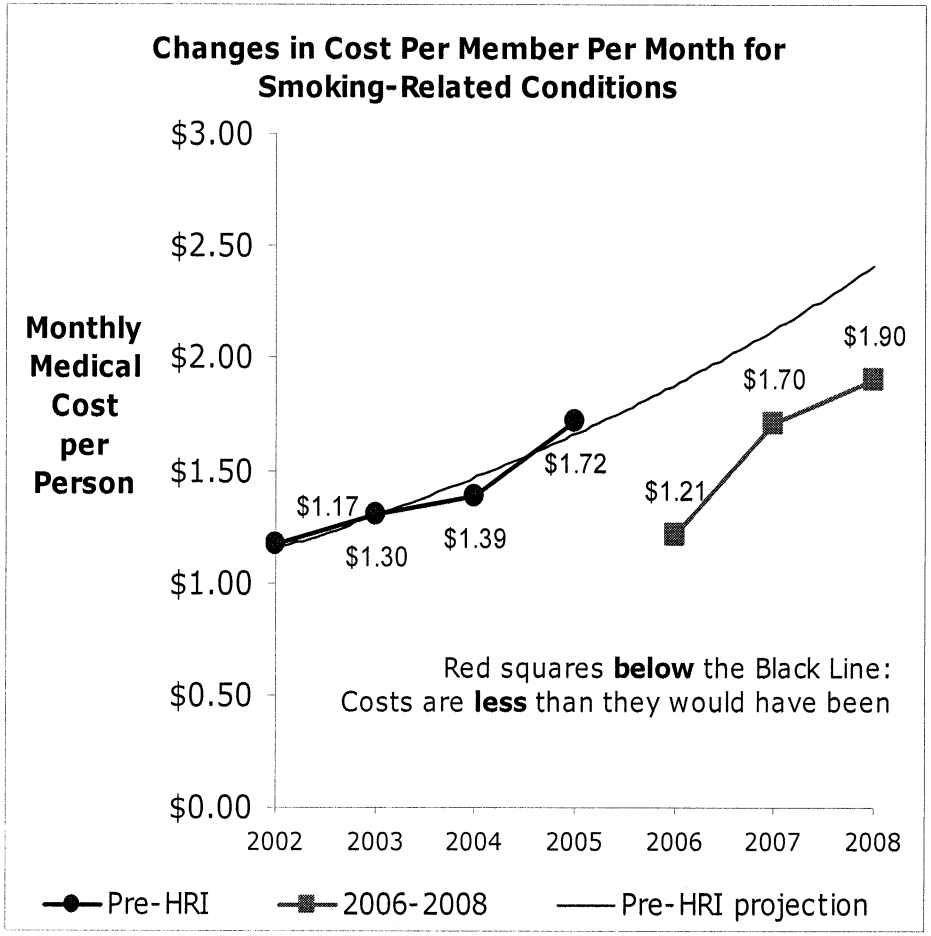


Figure 23



Uncontrolled high blood sugar and cholesterol

High blood sugar, high cholesterol and high blood pressure are closely associated (Figure28.) The self-reported number of participants who had high cholesterol dropped a statistically significant 9.6 percentage points between 2006 and 2009, and the number with high blood sugar rose 2.2 percentage points. The change in the number of people reporting high blood sugar is not statistically significant (Figure 26.) Costs for these conditions (unadjusted) dropped in 2006 before rising faster than the trend in 2007 (Figure 27.)

Figure 25

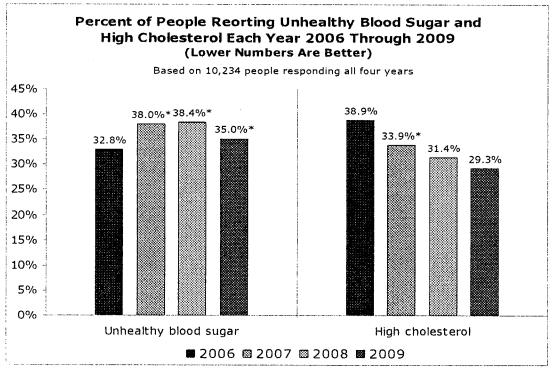


Figure 27

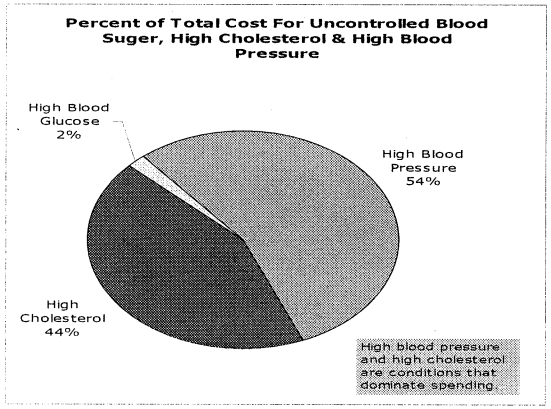
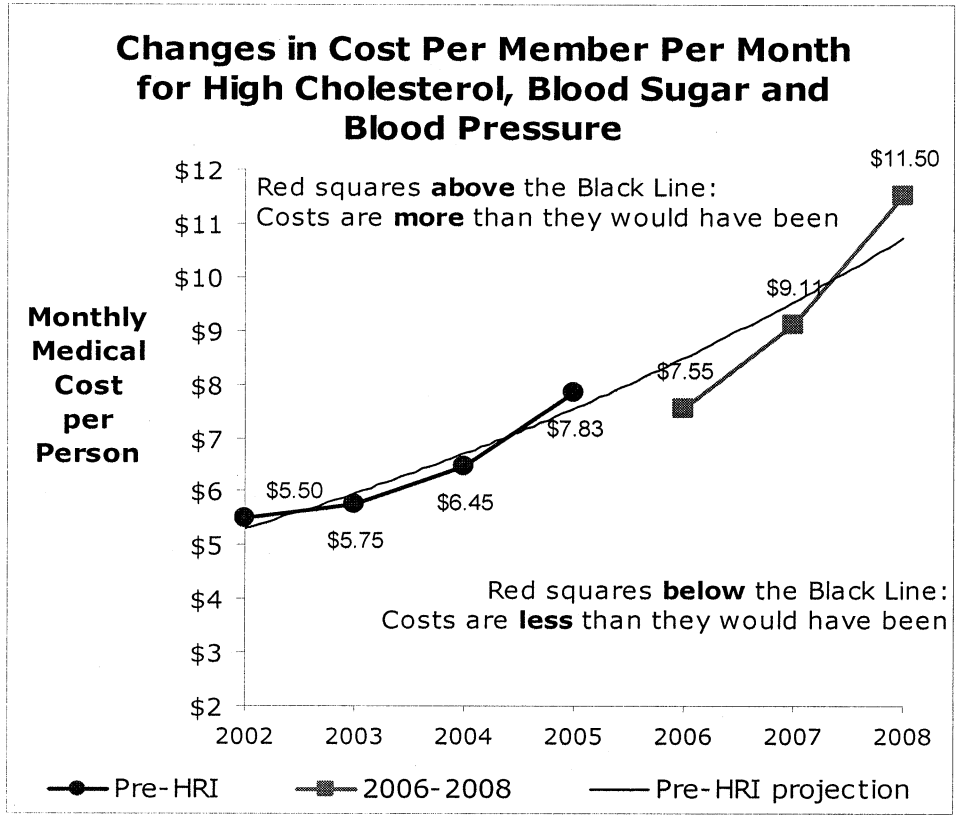


Figure 26



Obesity

Spending is tracked for patients whose primary diagnosis is obesity. Many obese patients are diagnosed for conditions related to obesity without the diagnosis code for obesity being used; only people who have an actual diagnosis of obesity are included in this analysis, and thus only "obesity" is shown in Figure31. People diagnosed as "obese" are a subset of the total number of people reporting high body weight to height. The percentage of participants self-reporting a high weight to height ratio dropped a statistically significant 2.0 percentage points from 2006 to 2009 (Figure29.) Costs for treating obesity (unadjusted) dropped in 2006 and 2007, and rose sharply in 2008 (Figure30.) This rise may be related to expanded communication regarding a medically-supervised weight management program available to KingCare[SM] members who are obese and requesting bariatric surgery.

Figure 28

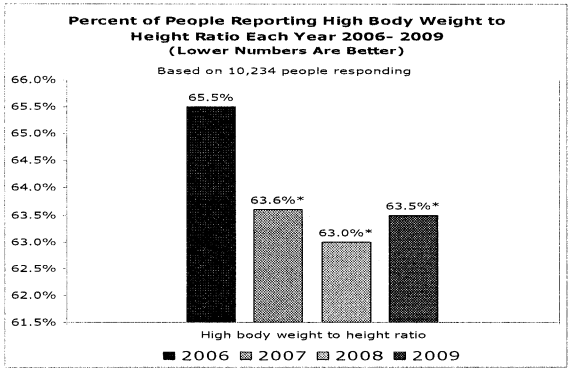


Figure 29

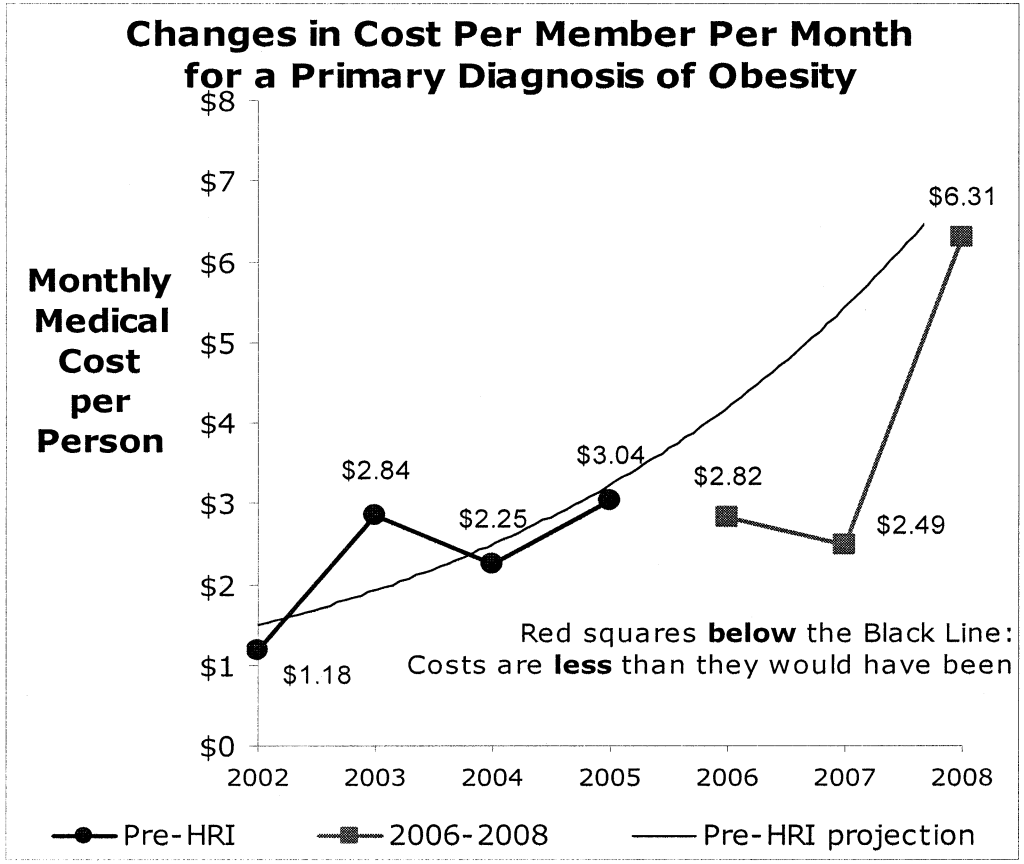
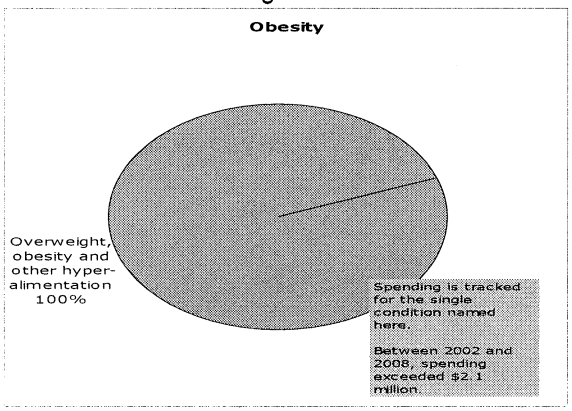


Figure 30



Alcohol Abuse

Rates of gastro-intestinal hemorrhage, gastritis and other conditions are higher in populations who abuse alcohol (Figure34.) There was a statistically significant drop of 1.5 percentage points in the number of people self-reporting alcohol abuse on the wellness assessment from 2006 to 2009 (Figure32.) Costs for conditions related to excessive alcohol (unadjusted) are lower than they would have been based on pre-HRI projections (Figure33.)

Figure 31

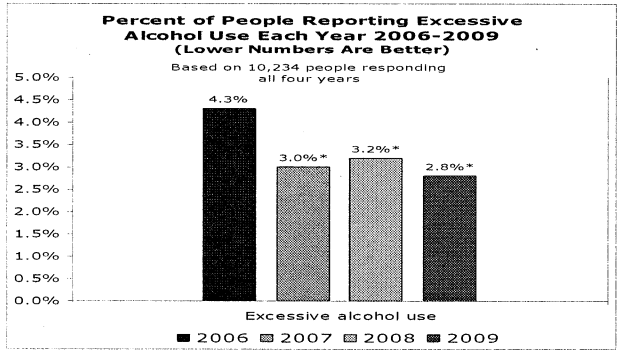


Figure 33

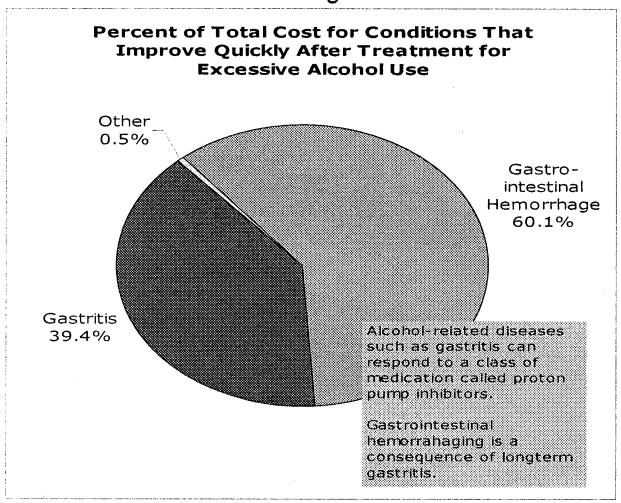
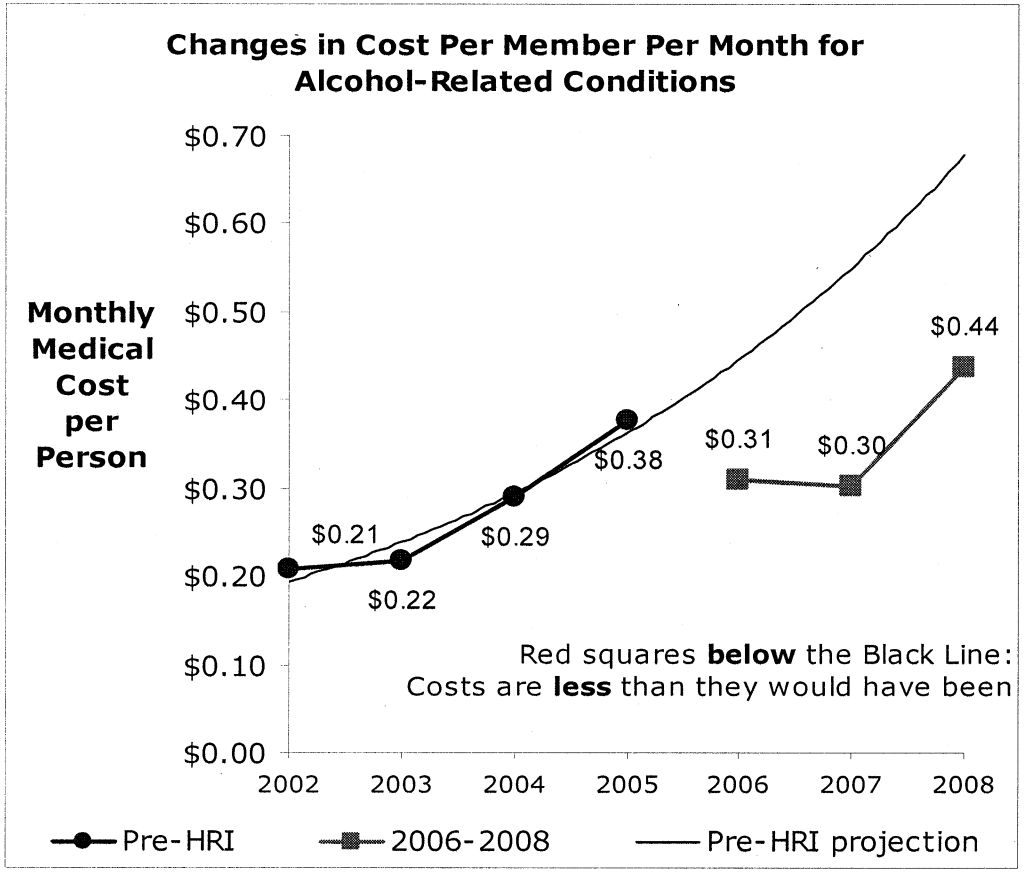


Figure 32



Common Mental Health Conditions

There are three sections of questions on the wellness assessment related to mental health. Between 2006 and 2009 the number of people reporting problems in these three areas showed statistically significant drops as follows: depression—1.5 percentage points, stress—4.9 percentage points and mental health—5.3 percentage points (Figure35.) After remaining on the on the 2003-2004 trend in 2005, costs (unadjusted) rose rapidly in 2006 and 2007 (Figure36.) It is important to note that the Washington State Mental Health Parity Act went into effect in 2006. This law requires plans that offer mental health benefits to provide them with the same level of coverage (*e.g.* co-pays) and restrictions (*e.g.* annual or lifetime maximum benefits) as the non-mental health benefits in the plan. As members became aware of this change in benefits the county saw a significant increase in both the number of claims and the cost per claim for mental health-related conditions. In many respects this increase in costs for common mental health conditions is actually a good sign that members are now seeking assistance for problems that can have a very high impact on both their ability to work productively and their quality of life overall. Figure 37 shows the proportion of common mental health costs for depression, anxiety and insomnia.

Figure 34

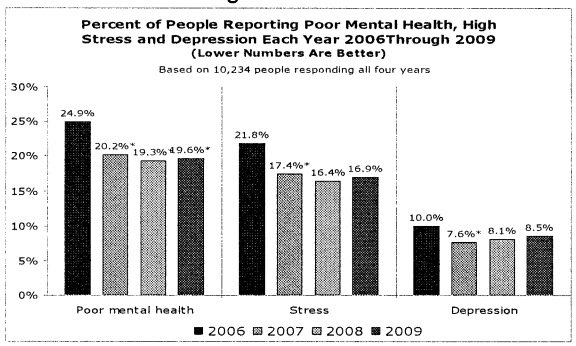


Figure 36

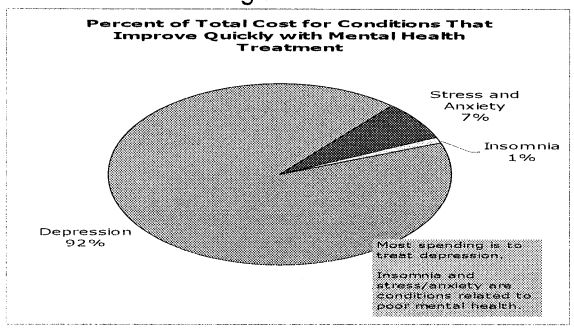
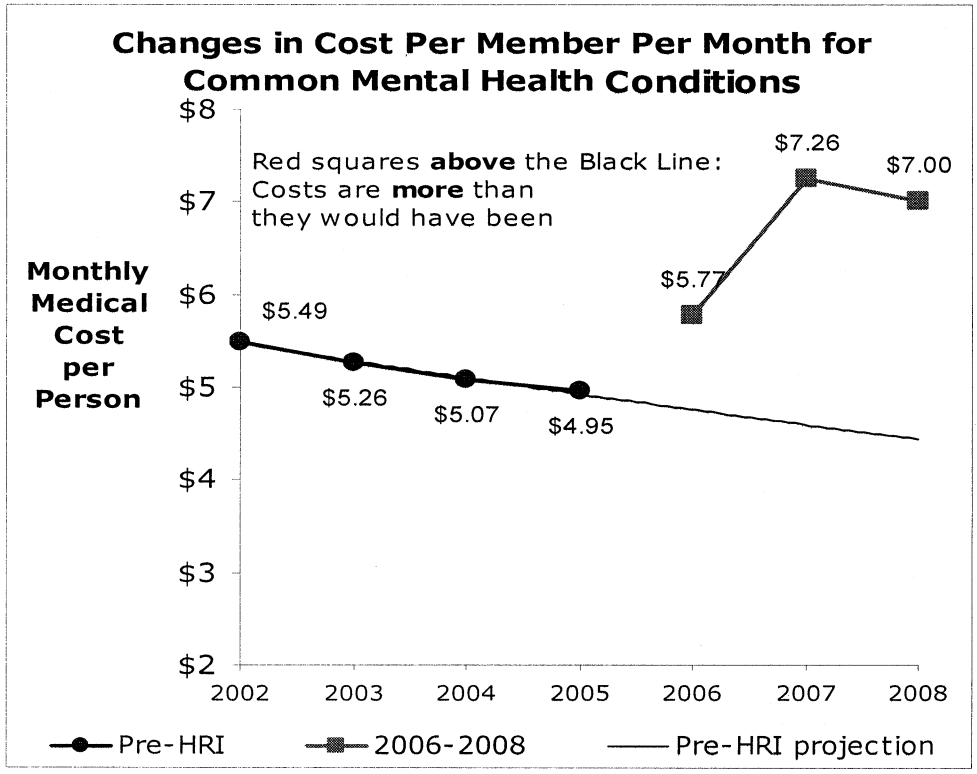


Figure 35



3. Financial impacts: *The county's health care cost increases have slowed*

The county's health care cost increases have slowed and the county's health care costs 2005-2009 were lower than projected increases if the HRI has not been in place; however per member per month costs remain high. The expectation was that the HRI's comprehensive approach would reduce the unadjusted claims trend growth from 10.8 percent to below the 8.9 percent target established in 2004 for the 2005 to 2009 period. As Figure 38 shows, the total gross actual medical and prescription drug claims dropped slightly more than the council-approved target in 2005 – 2008 and, based on preliminary estimates[44] of claims for 2009, met the target in 2009. This lower increase in year-over-year costs has resulted in the county and its employees spending an estimated $26[45] million less for employee and family health care costs for 2005 through 2008 than was projected from the 2003-2004 cost experience.

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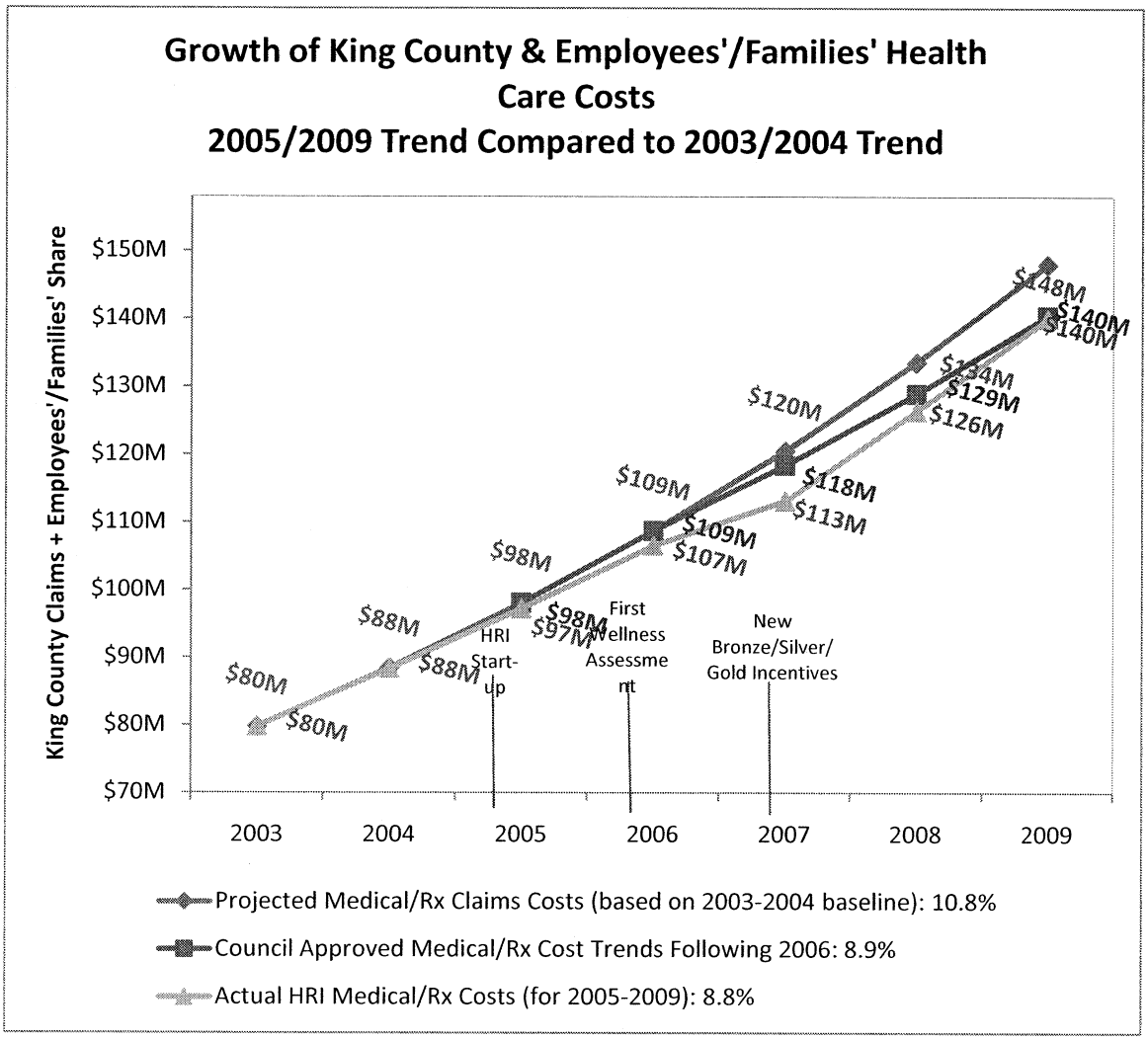
[44] Actual incurred costs for 2009 could not be calculated at the time of the publication of this report. The published actual incurred cost figure was estimated using paid claims data from January 2009 through June 2010 and adjusted using the annual cost estimates from previous reports. This estimation method was deemed the most comparable to the cost figures published in previous reports.

[45] Year by year reductions: 2005--$1M; 2006--$2M; 2007--$7M; 2008--$8M and 2009--$8M

Figure 37



Data are for costs incurred in KingCare[SM] medical and prescription drug claims for active employees and their families with full benefits; excluded are costs for COBRA, early retirees, LEOFF1 retirees, and Local 587 part-time. Costs have not been adjusted for inflation. Population ranged from 17,241 to 24,235 KingCare[SM] members over that time.

One import factor in driving cost growth is population age—during the HRI the average age of the King County population has increased nearly half a year (0.44 years) every calendar year of the program. Edington[46] and others have shown correlation between age and development of chronic health conditions in the absence of wellness programs. It is significant that the HRI saw a reduction in the growth of cost increases despite this rather large increase in population age.

The higher claims growth in 2009 is likely the result of a larger than usual number of very high cost claims at the end of the year, and a rush by

[46] Edington DW. 2001. Emerging research: A view from one research center. *American Journal of Health Promotion* 15(5):341-349.

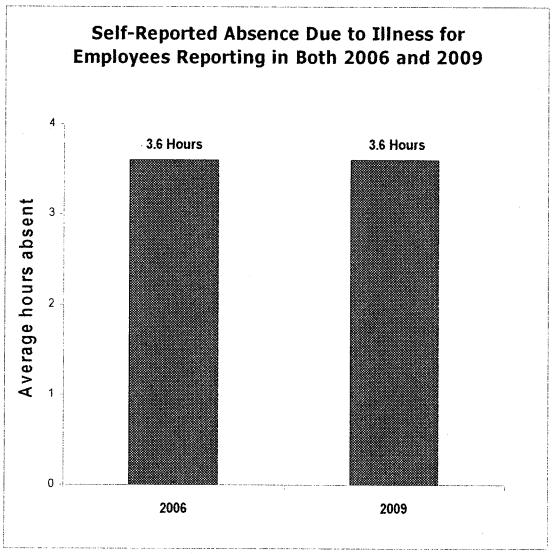
employees and family members to see providers before the 2010 benefits plans (with their higher out of pocket expenses for members) went into effect.

4. Increasing Healthy Hours Worked: *Employees have maintained the annual number of healthy hours worked*

Health conditions not only affect health care claims costs, they also affect an employee's absence from work and ability to perform at full capacity when at work. In 2006, the HRI started collecting self-reported information from employees about the number of hours they are absent due to their own personal health conditions, and in 2008 started collecting self-reported information from employees about the number of hours they come to work, but perform at less than full capacity, due to a health condition (presenteeism).

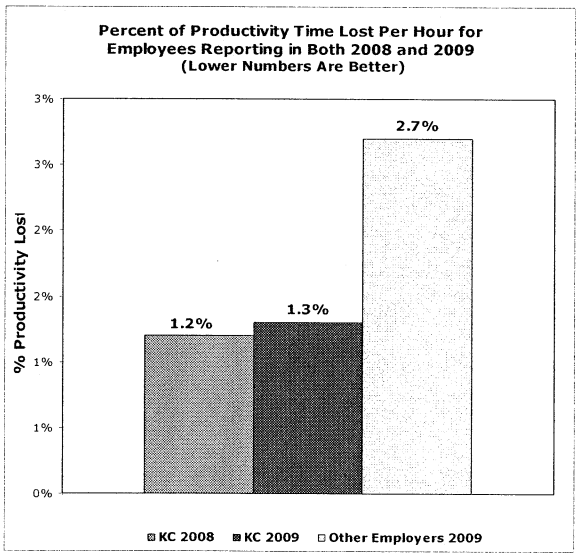
Absenteeism: There was no change in the self-reported hours of absence for employees due to illness in the four weeks prior to taking the wellness assessment for employees who took the assessment in both 2006 and 2009. Figure39 below shows this comparison.

Figure 38



Data are for employees who answered absenteeism questions in both 2006 and 200; N=4,6429

Figure 39



Data are for employees who answered presenteeism questions in both 2008 and 2009; N=4,642

Presenteeism: The HRI added the eight-question version of the Work Limitations Questionnaire (WLQ), a measure of "presenteeism", to the wellness assessment in 2008. Ideally this measure would have been included in 2006. However the original focus of the HRI was on measuring changes in direct health

care spending. Measurement of costs associated with absenteeism and presenteeism were added at the suggestion of the peer review panel[47]. The pattern of changes for other data from the wellness assessment shows a pattern where the greatest changes occurred between 2006 and 2007, with much smaller, or no changes, in 2008 and 2009. It is possible that the late introduction of this measure means there may have been one-time gains that occurred in 2007 that were not recorded.

The WLQ is a self-reported measure of absenteeism due to health related causes. It was developed by Dr. Debra Learner from Tufts University and the New England Medical Center. It has proven to be a valid and reliable tool for measuring presenteeism, or on-the-job productivity losses[48]. Raw data from 2008 and 2009 were sent to Dr. Learner's team for evaluation. Overall, the average productivity lost in one hour for employees who answered the WQL questions in both years was 1.2 percent in 2008 and 1.3 percent in 2009. This difference is not statistically significant. Comparatively, previous studies for other employers conducted by Dr. Learner have shown more than twice that amount at 2.7 percent lost productivity per hour due to presenteeism. These results are shown in Figure 40 above.

The overall score for presenteeism is a weighted sum of four sub-components relating to time (how difficult is it for the employee to get started at the beginning of the day), physical abilities (ability to sit or stand in one position and perform repeated tasks), mental-interpersonal (difficulty in concentration on work and contact with other people), and output (ability to complete tasks.) Looking at the specific sub-components of presenteeism for 2009, 5.4 percent of employees had illness-related problems with time management, 4.9 percent had problems on physical aspects, 5.2 percent had problems with the mental-interpersonal aspects, and 4.1 percent had problems with output. There was no significant change in results from 2008 to 2009.

5. The Puget Sound Health Alliance: *Changes in the quality and cost of the health care services employees and families receive are underway*

The Puget Sound Health Alliance has made major gains in bringing cost and quality issues into the public eye. As of 2009, the Alliance had established five regularly updated public reports comparing quality and cost among local providers and health plans and is in the process of developing additional public reports on the effectiveness of resource use by providers, provider quality from

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[47] This panel was convened by the county executive in the fall of 2006 following the publishing of the first HRI Measurement and Evaluation report. The purpose of this panel of five health care experts was to review the strategies, policies and programs of the HRI and make recommendations on program design, implementation and adjustments needed to maximize results and sustainability. The Panel noted that a number of studies have found that costs for sick leave and replacement wages may be as much as three to four times the direct cost of health care. *See King County Health Reform Initiative Check-Up: Report of the Peer Review Panel, October 2006.*

[48] Lerner D., Amick III, B.C., Rogers, W.H., Malspeis, S., Bungay, K., and Cynn, D (2001). The Work Limitations Questionnaire. *Medical Care,* 39(1): 72-85.

the patient point of view, and disparities in care received by different sub-populations.

In addition to the internal programs that promote improved employee and family health and wiser utilization of health care resources, the HRI also works on the "supply" side of the health care challenge. Founded in 2004, following recommendations by the King County Health Advisory Task Force, the Puget Sound Health Alliance is an integral component of the HRI's comprehensive strategy to improve employee and family health, enhance the quality of care provided in the region, and reduce the county's health care costs.

A regional consortium of employers, providers, and health plans, the Puget Sound Health Alliance has a critical role in reducing health care costs for everyone in the region by coordinating care among providers; encouraging the use of evidence-based treatment guidelines; creating public reports to compare cost and quality; and supporting efforts for payment reform. It is these efforts that will have the most powerful effect on the cost of health services used by King County employees and their families.

By 2009, the Puget Sound Health Alliance had assembled an extensive set of data sources and infrastructure to produce reports the public can use to compare the quality and cost of local health care providers. The first "Community Checkup" report came out in January 2008 with a review of 14 medical groups and about 70 clinics in our region. As the Alliance produced additional reports, the Community Checkup was expanded to compare even more health care providers. The public report can be found at www.WACommunityCheckup.org.

Patients, doctors, employers, and all community members now have the ability to research and compare ratings for care at nearby clinics or hospitals for a growing list of chronic conditions (e.g., heart disease), cost-effective care (e.g., use of generic drugs, avoiding inappropriate use of X-rays and MRIs), and systems in place to improve safety (e.g., avoid medication errors and 'never events'). As of mid-2009 the Community Checkup report included:

- Public comparisons of quality and value for care provided by about 200 medical clinics in the region - comparing care for diabetes, heart disease, depression, low back pain and asthma, as well as adherence to evidence-based guidelines for prevention, appropriate use of antibiotics, and filling prescriptions with generic

- Comparisons for medical clinic care provided to the Medicaid population versus those who are covered by commercial health insurance

- Public comparisons of care provided in about 40 hospitals in the region, with a focus on care that is safer and produces better health outcomes (e.g., for heart attacks, pneumonia, surgery, etc.), as well as comparisons of what patients think of their experience in each hospital

- Private customized reports for large purchasers, including King County, showing results for each of the 21 outpatient (ambulatory) care measures reflecting the care provided to that purchaser's covered employees and dependents. These 21 measures cover outcomes for asthma, depression, diabetes, generic prescriptions and antibiotic use, heart disease, low back pain, and prevention.

- In the fall of 2009, a public comparison of health plan services was added to the report, showing scores from the National Business Coalition on Health's national eValue8 program in areas including consumer engagement, provider measurement, pharmaceutical management, prevention and health promotion, chronic disease management and behavioral health. These measures track health plans' success in improving their member's health.

In addition to adding health plan comparisons, the Alliance is working on expanding the report to measure:

- Use of resources by medical group and hospital, and possibly 'systems' of care that include both inpatient and outpatient providers

- Quality and experience with medical clinic care from the patient's point of view

- Disparities in care received by different sub-populations, based on race, ethnicity and/or primary language

Appendix E

King County Health Reform Initiative 2009 Employee Survey Report Executive Summary

May 31, 2009

As part of the evaluation of the King County Health Reform Initiative (KCHRI), the fourth annual survey of King County employees was conducted beginning in December 2009. A stratified random sample of King County employees was surveyed on-line or through inter-office mail. At least one randomly selected employee from each bargaining unit and a random sample of non-represented employees were invited to participate in the survey. By February 4, 2010, a total of 355 employees had completed and returned KCHRI employee survey questionnaires.

Key Findings and Conclusions

Importance of and Reasons for Healthy Behaviors

About nine in ten employees (89%) rated the importance of reducing personal health risks and improving or maintaining healthy habits a 4 or a 5 on the five-point scale where five means "extremely important." About 90 percent of employees rated six considerations in decisions to reduce personal health risks and improve or maintain healthy habits a 4 or a 5 on a five-point scale where five means "extremely important": "To have more energy," "To be healthy after you retire to enjoy friends and family," "To be physically active after you retire," "To feel better," "To be physically active now," and "To live longer." Saving money on health care costs and being able to do good work also were important considerations in decisions to reduce personal health risks and improve or maintain healthy habits for over three-fourths of employees.

- Reducing personal health risks and improving or maintaining healthy habits is important to most employees, and the ability to be healthy and active now and after retirement are important considerations in decisions to reduce health risks and improve or maintain healthy behaviors.

Recent Changes, Healthy Behaviors

Eighty-one percent of the employees said that they have made at least one change to reduce personal health risks and improve or maintain healthy behaviors during the last three years. Ninety-seven percent of these employees said that they have continued at least one of the changes they made.

During work days, many employees try to improve health by engaging the following activities at least one day a week: having healthy lunches or snacks (95%), using the stairs at work (75%), and taking breaks to reduce stress (72%). Ninety-five percent of

employees spend time outside the work day (on weekdays before or after commuting to or from work, or on weekends) trying to improve health.

- Most employees report having made changes in the last three years, since implementation of the KCHRI, and engaging in activities now that reduce personal health risks and increase or maintain healthy behaviors.

Experience with and Interest in Making Life Easier Program Services

Thirteen percent of employees reported having used "Confidential, one-on-one sessions with a licensed counselor." Between one and four percent of employees said that they have used resources to help care for aging relatives, for children, or for disabled adult family members; to consult with an attorney; or to learn about how to manage debt and other money issues. Employees who have not used the Making Life Easier Program services indicated that they would be most likely to consult with an attorney or use resources to help care for aging relatives (43% and 42%, respectively, "definitely would" or "probably would" use).

- Employees' responses to the survey indicated that they have limited experience with Making Life Easier Program services. The services that employees said they would be most likely to use are consultations with an attorney or resources to help care for aging relatives, although the service that employees have already used the most was meeting with licensed counselors.

Interest in Receiving Information from KCHRI through Personal Email, Text Messaging, or Social Networking

Employees indicated that they would be more likely to sign up for messages from KCHRI to their personal email accounts (49% "definitely would" or "probably would") than for text messages (free or with a possible fee), Facebook, an iPhone application, or Twitter (5% to 24% "definitely would" or "probably would").

- The KCHRI may want to consider offering employees the option of receiving messages about important deadlines and programs to improve health in their personal email accounts.

Employees' Satisfaction with Opinions of KCHRI Features

While the majority of employees indicated that they think the KCHRI is "headed in the right direction to improve personal health and control health care costs" (55% "agree" or "strongly agree") and many employees indicated that the KCHRI has had positive impacts on them (e.g., 46% said that participating in an Individual Action Plan "definitely" or "probably" helped build or maintain healthy habits), some ratings of the KCHRI declined in 2009.

Satisfaction with components of the KCHRI (the initiative overall, Healthy Incentives[SM], and Health Matters Wellness Programs) and with information provided by the KCHRI either did not change across surveys, or increased in 2008 and then declined to levels comparable to 2007, when these questions were first asked.

Similarly, agreement with the statements that the KCHRI is headed in the right direction and that the KCHRI helps reduce health risks and maintain healthy habits did not change significantly across surveys, or increased and then declined to levels comparable to the results when these questions were first asked.

However, in 2009, responses to three items were significantly lower than when first asked: "My supervisor supports employees in improving health and maintaining healthy behaviors," "It is easier to reduce my personal health risks now than it was a year ago," and "Did participating in an Individual Action Plan help you build or maintain healthy habits?"

- For the most part, satisfaction with and opinions of the KCHRI have remained at least as favorable over time as they were when the program was new and employees may have been most motivated about program participation. However, the KCHRI may want to explore ways to improve these ratings in the future.

- Declines in ratings of the ease of reducing personal health risks and the benefits of participating in an Individual Action Plan may reflect natural program fatigue on the part of employees, but the KCHRI should monitor these areas and consider developing strategies to further support employees in reducing personal health risks and deriving benefit from participation in an Individual Action Plan.

- The significant decline in employees' perceptions of their supervisors' support for improving health and maintaining healthy behaviors suggests that the KCHRI should consider developing new approaches to increase supervisors' awareness of, involvement in, and commitment to the KCHRI in order to foster a workplace that is more supportive of employees and the initiative.

Appendix F

Choose Well

The health care choices of individual consumers and daily management of their own health can profoundly affect health care utilization, costs and outcomes. The goal of the Health Reform Initiative's Choose Well focus is to provide tools and resources that will enable employees to be more conscientious consumers of health care. The tools help employees become more involved in decisions that affect the quality of care they receive and how much they pay for it.

There is a proliferation of online decision support tools to help people navigate the health care arena. The Health Reform Initiative drives people to engage primarily with tools that would help them find quality, affordable care in the KingCare[SM] and Group Health networks. These tools educate members on the best course of treatment for certain conditions, enable KingCare[SM] members to compare how much the same procedure costs at different facilities, give quality ratings on clinics and medical groups throughout the region and provide general health information on conditions prevalent in the member population.

We use as a measure of success the number of people who create a personal health record because numerous studies have shown this tool can result in better care at a lower cost as a result of more involved patients and better doctor/patient communication. Since personal health records were made available to KingCare[SM] members in 2008, 1,607 people have created one. All Group Health members have access to an online medical record they share with their doctor.

A series of educational forums, outreach events and ongoing education efforts have introduced the online tools to employees and their spouses or domestic partners.

Web Page

http://www.kingcounty.gov/employees/HealthMatters/PersonalHealth/ChooseWell.aspx

Health Leadership Forum

The county's leadership was first introduced to the tools during a table top exercise at the 2008 Health Leadership Forum. The table-top had people sitting at tables collaborate to solve a scenario using the online tools provided by Group Health, Aetna and the Puget Sound Health Alliance.

Diabetes Awareness Day

We partnered with the American Diabetes Association to provide biometric screenings to our employees. In a room adjacent to the screenings, people were

invited to visit with community organizations at tables so they could learn how prevent and manage diabetes.

Lunch and Learns
In the summer of 2009, a series of lunch and learns were held at county worksites. Some of the region's best doctors talked to employees about things like Diabetes, heart disease, how to get the most from your primary care physician, how to stay healthy as you age and the Puget Sound Health Alliance talked to people about the value of quality care and how to use the Check Up report to find it. The sessions were also videotaped and streamed onto the web.

Choose Well poster campaign
In 2009 a poster campaign was launched featuring real county employees using the online tools. A series of 7 posters was distributed and posted at roughly 700 locations in county worksites. They featured the Community Check-Up Report, Aetna's cost of care tool, personal health records and the hospital comparison tool.

Choose Well Health Screenings
Using grant funds, the Health Reform Program provided a series of biometric screening events at county worksites. Group Health and Aetna were also present at tables to talk to people about quality care and the tools they have to help patients make smart health care choices. A Health Matters table featured information on the Puget Sound Health Alliance's Community Check-Up report and online decision support tools available to county employees. At a county Benefits table employees could learn how their benefits could help them stay healthy or support them in managing a chronic disease.

2009 Open Enrollment home mailer
In preparation for Open Enrollment in October of 2009, King County mailed a brochure to every home letting members know of the benefits changes coming in 2011 and educating them about where to find information that would help them find quality, affordable health care in the region.

Health Matters newsletter articles
The Health Matters e-newsletter has a regular Choose Well feature that educates readers on how their choices can affect the cost and quality of health care they receive. Topics have ranged from what it means for the county to be self insured to how choosing generics can save the county and the member money.

Appendix G

Summary of Health Benefits 2010-2012

1. **No premium share**

2. **Group Health gold, silver and bronze plans**—Please see Frequently Asked Questions (FAQs) for more information about these plan provisions http://www.kingcounty.gov/employees/benefits/2010.aspx

Group Health No changes from 2009	Gold	Silver	Bronze
Deductible	None	None	None
Annual out of pocket maximum	$1,000/ individual $2,000/family	$2,000/individual $4,000/family	$3,000/ individual $6,000/ family
Office visit copay	$20 per visit	$35 per visit	$50 per visit
Inpatient hospital copay	$200/ admission	$400/ admission	$600/ admission
Coinsurance (plan pays most covered expenses after copays)	100%	100%	100%
Prescription drug copays (at pharmacy—1 month supply)	$10 generic $20 preferred brand $30 non-preferred brand	$10 generic $20 preferred brand $30 non-preferred brand	$10 generic $20 preferred brand $30 non-preferred brand
Prescription drug copays (mail order—3 month supply)	$20 generic drugs $40 preferred brand $60 non-preferred brand	$20 generic drugs $40 preferred brand $60 non-preferred brand	$20 generic drugs $40 preferred brand $60 non-preferred brand

3. **KingCare℠ gold, silver and bronze plans**—Please see Frequently Asked Questions (FAQs) for more information about these plan provisions http://www.kingcounty.gov/employees/benefits/2010.aspx

KingCare℠ Gold	2007- 2009	2010-2012
Deductible (medical)	$100 per individual $300 per family	$300 per individual $900 per family
Coinsurance (medical)	90% In network 70% Out-of-network	85% In network 65% Out-of-network
Annual out-of-pocket maximum for member coinsurance (medical)	*In network services* $800 per individual $1,600 per family	***No change from current*** *In network services* $800 per individual $1,600 per family

KingCare℠ Gold	2007- 2009	2010-2012
	Out-of-network services $1,600 per individual $3,200 per family	*Out-of-network services* $1,600 per individual $3,200 per family
Annual out-of-pocket maximum for member coinsurance (medical)	*In network services* $800 per individual $1,600 per family *Out-of-network services* $1,600 per individual $3,200 per family	***No change from current*** *In network services* $800 per individual $1,600 per family *Out-of-network services* $1,600 per individual $3,200 per family
Prescription drug copays (at pharmacy—1 month supply)	$10 generic drugs $15 preferred brand $25 non-preferred brand	$7 generic drugs $30 preferred brand $60 non-preferred brand
Prescription drug copays (mail order—3 month supply)	$20 generic drugs $30 preferred brand $50 non-preferred brand	$14 generic drugs $60 preferred brand $120 non-preferred brand
Progressive medication for certain classes of drugs (See FAQs for details)	None	12 classes of drugs
Annual out-of-pocket maximum for copays on prescription drugs	Unlimited	$1,500 per individual $3,000 per family
Deductible (medical)	$300 per individual $900 per family	$600 per individual $1,800 per family
Coinsurance (medical)	80% In network 60% Out-of-network	75% In network 55% Out-of-network
Annual out-of-pocket maximum for member coinsurance (medical)	*In network services* $1,000 per individual $2,000 per family *Out-of-network services* $1,800 per individual $3,600 per family	***No change from current*** *In network services* $1,000 per individual $2,000 per family *Out-of-network services* $1,800 per individual $3,600 per family
Prescription drug copays (at pharmacy—1 month supply)	$10 generic drugs $15 preferred brand $25 non-preferred brand	$7 generic drugs $30 preferred brand $60 non-preferred brand
Prescription drug copays (mail order—3 month supply)	$20 generic drugs $30 preferred brand $50 non-preferred brand	$14 generic drugs $60 preferred brand $120 non-preferred brand
Progressive medication for certain classes of drugs (See FAQs for details)	None	12 classes of drugs

KingCare℠ Gold	2007- 2009	2010-2012
Annual out-of-pocket maximum for copays on prescription drugs	Unlimited	$1,500 per individual $3,000 per family
Deductible (medical)	$500 per individual $1,500 per family	$800 per individual $2,400 per family
Coinsurance (medical)	80% In network 60% Out-of-network	75% In network 55% Out-of-network
Annual out-of-pocket maximum for member coinsurance (medical)	*In network services* $1,200 per individual $2,400 per family *Out-of-network services* $2,000 per individual $4,000 per family	***No change from current*** *In network services* $1,200 per individual $2,400 per family *Out-of-network services* $2,000 per individual $4,000 per family
Prescription drug copays (at pharmacy—1 month supply)	$10 generic drugs $15 preferred brand $25 non-preferred brand	$7 generic drugs $30 preferred brand $60 non-preferred brand
Prescription drug copays (mail order—3 month supply)	$20 generic drugs $30 preferred brand $50 non-preferred brand	$14 generic drugs $60 preferred brand $120 non-preferred brand
Progressive medication for certain classes of drugs (See FAQs for details)	None	12 classes of drugs
Annual out-of-pocket maximum for copays on prescription drugs	Unlimited	$1,500 per individual $3,000 per family

4. **Dental: Increased maximum annual benefit from $2,000 to $2,500 per plan member**

5. **Benefit Access Fee: Increased from $35 per month to $50 per month**

6. **Healthy Incentives℠ program—continues in 2010-2012 with more options for individual action plans**